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FOR
HEART

January 1981 • Vol. 74 • No. 1

The JOURNAL

of the **INDIANA**
STATE MEDICAL ASSOCIATION



half-life

Just one built-in advantage

Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough

Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued.

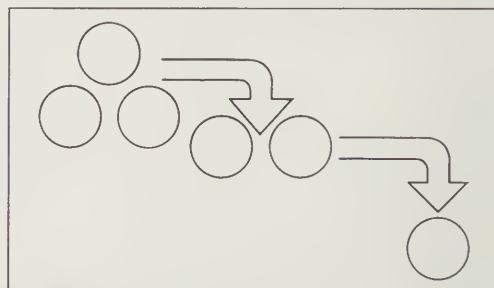
Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for

the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation

When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



*in the management of
symptoms of anxiety*

Valium®
diazepam/Roche
2-mg, 5-mg, 10-mg scored tablets

*effective therapy through
efficient pharmacodynamics*

Before prescribing, please see summary of product information on next page.



Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; atetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age.

Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss pregnancy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

ROCHE

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WHAT'S NEW?

HEWLETT-PACKARD has a new microprocessor-based defibrillator/monitor with a built-in annotating recorder designed for use in hospitals and emergency medical vehicles. The annotating strip chart recorder can provide hard copy medical/legal documentation of critical episodes during a resuscitation.

GENERAL ELECTRIC announces an improvement feature for its PDS 3036 patient monitoring systems. Flashback® program allows the user to examine prior arrhythmias experienced by an individual patient. In addition to the ECG waveform, each display includes the patient's name, room number, arrhythmia classification, heart rate, lead configuration, time of occurrence and date.

GTO ELECTRONICS is introducing a new PACS™ portable power system, which will be marketed to hospitals as an emergency power source. The PACS-300A automatically supplies 110 volt AC power in the event of a shutdown. The PACS-300B provides portable AC power at remote locations. All units provide 150 watts/300 watts surge power, have self-contained batteries and a battery indicator, which automatically sounds when the battery is low. Batteries may be recharged by either 110 volts AC or 12 volts DC.

ORTHO PHARMACEUTICAL recently introduced MECLAN™ (meclocycline sulfosalicylate 1%) Cream. It is available by prescription only. It is specifically formulated for the treatment of acne. No systemic side effects and no measurable systemic absorption has been reported for the antibiotic content. Applied directly to the skin twice daily for 11 weeks, 82% of the patients treated experienced clinical improvement.

A DISPOSABLE SKIN STAPLER has been introduced by 3M. It is lightweight and has excellent fingertip control. It may be held comfortably in a variety of ways according to the position of the incision. Two sizes of staples are available. The stapler packs are sterile and ready to use.

BARDES PRODUCTS of Milwaukee has a new product, a 40-pocket transparent vinyl jacket for 35mm slides. It may be used as a self-contained file folder, as an insert in a standard three-ring binder for 11 x 8½ sheets, or as a folder in a hang file or in a conventional file drawer.

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News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

The JOURNAL

of the
INDIANA
STATE MEDICAL ASSOCIATION

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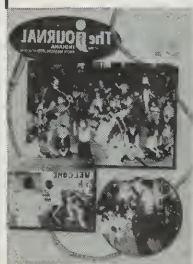
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ABOUT THE COVER

The national Pepi Jump Rope for Heart program has gained wide popularity among young Indiana students. The American Heart Association program usually is worked into curricula as part of school physical education programs. Although the Pepi program is an ongoing one, this is the time of year when most schools are registering for it. For more information on Pepi, see Page 8.



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MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis

THE APRIL 1976 page of Notes featured the wet plate collodion portrait of Graham Newell Fitch, M.D., of Logansport (1808-1892), and its history from the time it was originally done in the late 1850s until it was acquired by the Museum.

Graham N. Fitch, M.D. 1808-1892

Dr. Fitch, in addition to the practice of medicine, was a teacher (Professor of the Principles and Practice of Surgery, Medical College of Indiana, 1878-1892), soldier (Colonel of the 46th Infantry Regiment of Indiana Volunteers: sieges of Fort Thomas and Island No. 10, and the capture of Memphis), and politician (Indiana Legislature: 1836-37 and 1839-40; representative to Congress from his district 1848-52, and United States Senator from 1856 to 1861).

Today's page of Notes tells how it was that Dr. Fitch became senator from Indiana. Actually, he didn't make it by 1856, and some might question the legality of the method by which he finally succeeded.

"The circumstances surrounding his election were somewhat unusual. At that time there was no federal law prescribing the method of electing senators. Each state was left to its own devices, except that the election was to be done by the legislature. In Indiana the custom long had been for the house of representatives, by resolution, to invite the senate to meet with it in joint convention, at an hour of day specified in the resolution, 'for the purpose of electing a member of the United States senate.'

"When the legislature met in January 1855, a vacancy in the United States senate was to come on the following March 4. At that time the state senate was Democratic by a small majority. The house was largely opposition, giving the opposition a decided ma-



**19th Century Indiana State House
Built in 1832**

jority in the joint ballot, thus enabling them to elect a senator . . .

"The house passed the usual resolution, inviting the senate to meet in joint convention to elect a senator. The senate declined to act on the resolution, and no joint convention was held. Thus the state was left for two years with only one representative in the senate.

"By a turn in the political field, when the legislature met in January 1857, the senate had passed into the hands of the opposition, while the house had become strongly Democratic. This gave that party a majority on the joint ballot. By that time the term of Jesse D. Bright, the remaining member of the senate, would expire on the ensuing March 4, making two places to fill.

"The Democratic house passed a resolution inviting the senate to meet it in joint convention, for the purpose of electing two members of the United States senate . . . The senate refused to consider the house resolution.

"On the day fixed in the resolu-

tion for the meeting of the joint convention, the Democratic Lieutenant-Governor called a Republican to the chair and leisurely walked out of the senate chamber. He was slowly followed by the Democratic senators who were present. Out of the senate's chamber they went to the house. When they had found seats, the Democratic speaker of the house ordered the doors locked and announced that the joint convention for the election of two United States senators was in session.

" . . . The Democrats speedily accomplished their purpose, electing Jesse D. Bright and Graham N. Fitch . . ."

The Republicans later protested, but in vain.

The above quotations are from an article written by W. A. Smith, a political news reporter, then in his 92nd year. This article appeared in the November 18, 1930 issue of the *Indianapolis News*. I am indebted to Mr. George Weber, of Robinson, Illinois for a copy of this article.

EDITORIALS

'Indiana Plan' Continues Charting Successful Course

The Indiana Statewide Medical Education System, the "Indiana Plan," continues to improve. Each year finds new facilities, enlargements of the basic system, and dramatic increases in the end product—the well-trained physician who practices in Indiana.

Success of the system confers much credit to the planning staff of the I.U. School of Medicine, and to a far-seeing State Legislature, many cooperating community hospitals, hundreds of practicing physicians, and community leaders.

Seven regional Centers for Medical Education have allowed other universities and colleges to assume a portion of the instructional duties. Community hospitals in these same locations have contributed greatly to the clinical training of students. Residencies in the state have increased since 1967 from 428 to 933. Training facilities in the primary care specialties have increased during the same period by 57.8%.

The well known and justly famous *bottom line* of this progress is a greatly enlarged student body and a change in the number of practicing physicians in Indiana from 94 per 100,000 population to 132 per 100,000. And, best of all, Dean Steven Beering, in his annual report, looks forward to continuing improvements and to even larger successes.

96% Success Rate Reported In Voice Restoration

Members of the Otolaryngology and Head and Neck Surgery Department at the I.U. School of Medicine and the Veterans Administration Medical Center have achieved 96% success in voice restoration in 112 patients undergoing laryngectomy.

After healing has occurred, a small opening is established between the upper portion of the tracheostomy and the esophagus. This small opening is used to install a 3-cm. long one-way silicone valve which allows the patient to introduce exhaled air from the trachea into the esophagus after blocking the external tracheostomy opening. The esophageal air then functions in speech production.

The silicone valve has been approved by the FDA and is available commercially. Most but not all laryngectomees are suitable candidates for the prosthesis. Those who are able to achieve an esophageal voice by swallowing air and regurgitating it do not need the prosthesis.

Various physical and psychological considerations are necessary when evaluating indications for the new device.

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THE INDIANA STATE MEDICAL ASSOCIATION

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2—Harold M. Manifold, Bloomington	Oct. 1981
3—Richard G. Huber, Bedford	Oct. 1982
4—Mark M. Bevers, Seymour	Oct. 1983
5—Paul Siebenmorgen, Terre Haute	Oct. 1981
6—Dovis W. Ellis, Rushville	Oct. 1982
7—Donald C. McCollum, Indianopolis	Oct. 1983
7—John G. Pantzer, Indianapolis	Oct. 1981
8—Jack M. Walker, Muncie	Oct. 1981
9—Jahn A. Knate, Lafayette (Chairman)	Oct. 1982
10—Charles D. Egnatz, Schererville	Oct. 1983
11—Herbert C. Khalouf, Marion	Oct. 1981
12—DeWayne L. Hull, Fort Wayne	Oct. 1982
13—Donald S. Chamberlain, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gourieux, Evansville	Oct. 1982
2—Ralph W. Stewart, Vincennes	Oct. 1983
3—Eli Hallal, New Albany	Oct. 1983
4—William E. Cooper, Columbus	Oct. 1982
5—Benny Ka, Terre Haute	Oct. 1982
6—Clarence G. Clarkson, Richmond	Oct. 1981
7—John D. MacDougall, Beech Grove	Oct. 1982
7—H. Marshall Trusler, Indianopolis	Oct. 1982
8—Richard L. Reedy, Yorktown	Oct. 1982
9—Mox N. Haffman, Covington	Oct. 1983
10—Walfred A. Nelsan, Gary	Oct. 1982
11—Edward L. Langstan, Flora	Oct. 1983
12—Michael O. Mellinger, LoGrange	Oct. 1983
13—John W. Luce, Michigan City	Oct. 1982

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EDITORIALS

The Annual Physical: Weighing the Benefits

The annual physical examination when it was originated years ago was more popular as a status symbol than for utilitarian purposes. Later it was adopted by large corporations for the executive staffs. Still later it was adopted to a considerable degree by the general public.

Now, at or near its greatest popularity, the annual physical is itself being examined to determine its benefits, if any, and also to define its contents.

Dorsey W. Woodson, editor-in-chief of *Medical World News*, in a recent editorial, points out the widespread and longstanding criticisms of the medical profession in regard to a fancied or actual disregard by physicians of the preventive element in medical practice.

Woodson has reviewed the evidence on this subject and finds much to support the feeling held by many practitioners that annual physicals are too often and too thoroughgoing.

One of the doctrines of the HMO—as the full name, Health Maintenance Organization, suggests—is that the patient who is subjected to periodic health checks will be ill much less often than those who are not subjected.

Item: The Kaiser-Permanente HMO has followed for 10 years the results of universal periodic chest x-rays, urinalyses, fasting blood-glucose measurements, and several other blood chemistries. They cannot report any clinical advantage accruing to the patients. The only contribution to longer life in the entire procedure was the routine test of blood pressure and the early detection of hypertension.

Item: The American Cancer Society has revised the frequency and in some instances the content of the regular examinations for detection of malignancy. Quite a few clinicians have objected to the new program but have been assured that the ACS is offering advice and does not presume to dictate. The advice, in this case, is based on exhaustive review of the literature. The new standards were suggested because the review could not demonstrate any advantage for the earlier schedule.

Item: The Canadian Task Force on the Periodic Health Exam and its 40 consultants went to the world literature and found no rationale for the extended exam. The panel recommended a drastically stripped-down checkup.

As a matter of fact the best advice for good health is weight-control, moderation with alcohol, no tobacco, and careful driving. These are all elements of hygiene and common sense. They should be espoused by doctors but should also be a part of every citizens' common education.

It would be interesting to make a tally of everyone who criticizes the profession for failure to practice preventive medicine and keep score of how many are obese, addicted to alcohol, drive like fools or smoke like chimneys.

VA's 'Operation Outreach' Aids 30,000 in First Year

"Operation Outreach," the newest VA service for Vietnam veterans, has been in operation for a year. Conceived by Max Cleland in an effort to reach the veterans who needed help desperately and who avoided all medical facilities, the program was set up in 91 so-called store front centers in the urban areas where veterans with problems were most likely to be found.

The centers are staffed by 376 individuals from VA units and from outside the VA. Most are Vietnam veterans, 50% are combat veterans and half of them are disabled. In the first 12 months, 30,000 veterans have been cared for. The program has had the significant advantage of informative articles published by national media such as *Life*, *Newsweek*, *Time* and *U.S. News and World Report*. Some 1,200 news stories have helped.

Large numbers of veterans continue to report to the centers. There were 5,476 new contacts in August alone. The plan is so successful the leaders are worried about those veterans who may join up with expectations unrealizably high.

One great advantage is that, in addition to the direct benefits, "Operation Outreach" has played a vital role in educating and sensitizing other health care providers with the needs of Vietnam veterans. Clinical reports have been made to the American Psychiatric Association and to the American Psychological Association.

The program has been in the planning and selling stages for 10 years. However, as Max Cleland points out, it has apparently taken about 10 years for veterans to recognize and face up to the subconscious psychological impact of war experiences.

Inflation's Prime Source: The Cost of Government

The cost of government is the greatest cause of inflation. Attempts to place the blame elsewhere and thus avoid the real cure is the cause of continuing and worsening inflation.

David Rockefeller, chairman of Chase Manhattan Bank says: "To put it bluntly, the root of our current inflationary crisis is clearly the soaring price of government." He urges curtailment of the expansion of government benefits. "We have reached the end of the line. The growth of social programs can no longer exceed the growth of the businesses on which they finally depend."

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Widow Awarded Workmen's Compensation For Worker's Drug Poisoning Death

Court Action

A patient's employer was responsible for the acts of the patient's private physician in treating him for an industrial accident, an Indiana appellate court has ruled.

The patient injured his head and face in a fall at work in May 1972. The employer referred the patient to an orthopedic surgeon for treatment, and the patient later sought the services of a neurologist. The patient died of drug poisoning on Dec. 31, 1972, as a result of ingesting alcohol

along with Valium and Librium prescribed by the neurologist.

The Industrial Board of Indiana awarded the patient's widow workmen's compensation, and the appellate court affirmed. The court said that the employee's drinking was mere carelessness and not an independent cause of his death. The employer was responsible for the acts of the patient's neurosurgeon even though it did not authorize such treatment, the court said. — *Joseph E. Seagram & Sons, Inc. v. Willis*, 401 N.E.2d 87 (Ind. Ct. of App., March 12, 1980)

Courtesy of *The Citation*, Sept. 15, 1980



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EDITORIALS

Today's Pharmacy Education May Not Be Adequate

For quite a few years some schools of pharmacy have been emphasizing the "clinical" aspects of the profession. The basic theme of the changes in pharmaceutical curriculum was that the pharmacist, due to extensive knowledge of drugs, was better suited to choose the patients' drugs than was the physician.

This was at a time when it was a well accepted custom for a physician to consult with a pharmacist for precise appraisal of a drug or a group of drugs when a clinical condition required careful therapy. Such a consultation combined the physician's knowledge of the history, physical findings, laboratory findings and clinical course with the pharmacist's refined knowledge of pharmaceutical science.

Such consultations naturally occurred more often in hospitals and involved hospital pharmacists. These pharmacists, due to the distribution of almost all drugs in a finished form ready for dispensing, were inclined to classify themselves as "counters and pourers." And, due to the nature of hospital pharmacy practice, the pharmacist rarely had any contact with the patient as is common in a community pharmacy.

Naturally, the question of how much clinical pharmacy practice should be taught and how much should be engaged in divided the pharmacists and the various pharmaceutical associations into at least two

groups. There has also been a variation between pharmaceutical colleges.

Opinion has varied considerably according to the type of practice involved. The hospital pharmacists have, naturally, been more attracted to the clinical approach. Community pharmacists, accustomed as they were and are to advising the patient, when a prescription is filled, on the dosage, the possible side effects, etc., seem not to have accepted the clinical approach as completely as have others. One small group of enthusiasts, early in the movement, advocated that the physician should write the diagnosis on a prescription blank and permit the pharmacist to prescribe the medicine. Private opinions have differed from this one all the way down to nothing.

Now it appears that the curriculum changes in some schools have altered the basic pharmacy education to such an extent that recent graduates are not properly prepared for practice in community pharmacies. They are filled with courses on diagnosis and therapy and lack the training they went to school for.

Action in Pharmacy, a publication supported by a group of pharmaceutical manufacturers and distributed to pharmacy students, takes a strong editorial position on the clinical pharmacy question: "Some schools teach their students the art and science of compounding and dispensing, while others treat these subjects lightly and at times condescendingly." And "The over-zealous increase in clinical courses is adversely affecting the undergraduate curriculum in the school."

Pepi Jump Rope for Heart Program

More About Our Cover

THE TREND TOWARD a declining death rate from cardiovascular disease in the under-65 population is an encouraging sign that the research and education efforts put forth in the battle are beginning to pay off.

The American Heart Association is making a major effort in educating young people to these needs with a program called Heart Health Education in the Young. The emphasis in this program is in getting educational materials into the curriculum that teach the importance of a healthy lifestyle—one that includes proper diet and exercise as keys to being physically fit, keeping the cardiovascular system properly maintained.

The Pepi Jump Rope for Heart event, held in schools all over the state, and the nation, has proved to be a valuable tool in this educational process. Pepi (Physical Education/Public Information) is a subcommittee of the Indiana Association for Health, Physical Education, Rec-

reation and Dance, which sponsors the event. The students participate in a two-hour Jump Rope, jumping in teams of six. They compete for prizes and solicit pledges; the proceeds of the pledges go to the Heart Association.

The response to this event by students and by PE instructors has been tremendous, both in terms of participation in the Jump Rope for Heart, and in becoming aware of the materials the Heart Association has available to assist instructors in the educational process. Several Division offices throughout the state have already found it difficult to keep pace with the response.

The American Heart Association hopes this response will be seen in healthier students who, with the knowledge they have received, will continue to maintain a lifestyle that will further reduce not only the incidence of death from cardiovascular disease, but reduce the incidence of the disease itself.

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Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hyperophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or Iridium Bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium[®] (chlordiazepoxide HCl/Roche) to known addicts.

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.) 

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

REVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or if the patient has become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants.

WARNINGS:



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Satin Slippers

Guest Editorial

ONCE UPON A TIME, people wore shoes made of genuine or imitation leather. They were satisfied with this footwear, because they neither needed nor could afford expensive satin slippers.

Then an insurance company started selling "foot insurance." Strangely, people began to suf-

flippers, malcobbler policies, shoehorns, attorney fees, and especially, taxes.

When the national cost of footwear really began to pinch, everyone—shoe customers, insurance companies, even some attorneys—concurred that the shoemakers were causing the high

JOHN M. CORBOY, M.D.
Wahiawa, Hawaii

fer from traumatoe, solescuff, heelhives, and other maladies, which were occasionally relieved by wearing satin slippers. In time everybody who had any problem with their feet was demanding satin slippers, rationalizing that "the insurance company will pay for them, anyway."

When the shoemakers protested this extravagance, their customers replied, "We know of someone who almost died of shoe allergy, until she started wearing satin slippers. If we're forced to take a chance and we get the allergy, we'll sue!" Shortly thereafter, a man with an ingrown toejam consulted his attorney, who conceded that it might be due to shoeshock. Luckily the shoemaker had malcobbler insurance, and his company advised settling out of court. From then on the shoemaker, his insurance rate climbing, took no chances; he turned out nothing but satin slippers.

Naturally the cost of satin zoomed, so the government predictably sent in an army of clerks with money to the rescue: *Pedicare* helped senior citizens, while *Pedicaid* would foot the bills of the poor. As expected, federal involvement soon kicked up the cost of everything: foot insurance,

cost of footcare. They demanded that the federal government regulate footwear and "Footcare Providers" (the new term for shoemaker). Regulation required a host of new agencies, another army of clerks, and jillions of dollars. Congress poured billions more into Professional Shoemaker Review Organizations (PSROs) and subsidies for experimental Healthfood Maintenance Organizations (HMOs), which peddled shoetrees, preventive massage, and pedicure. Opportunists proffered biofeedback, cornplasters, and foot-upuncture, while demanding "provider" status. Footometrists lobbied for diagnostic drugs! While footcare costs threatened to bankrupt the nation, eager politicians proposed National Foot Insurance.

Meanwhile, the shoemakers protested that all this bureaucracy had nothing to do with the quality of footcare, and simply added to the cost.

Finally, people got tired of oppressive footcare taxes and long lines waiting for expensive satin slippers; some went back to wearing what they'd always worn before, and which, they discovered, worked almost as well most of the time. Still, they couldn't help wondering why shoemakers didn't know this. They began to suspect that shoemakers had preferred making satin slippers all along, because they're so much more expensive. After all, everybody knows "they're only in it for the money."

Reprinted with permission from the Hawaii Medical Journal, Honolulu, in which this editorial appeared in September 1980.

Aspirin as an Anticoagulant

Guest Editorial

ASPIRIN has been used as an anticoagulant for the past decade. The mechanism of its action is just being determined. Many questions arise concerning its use and response. For example, why does it seem to benefit men more than

I. E. MICHAEL, M.D.
JAMES E. CASSADY, M.D.
LINDA M. LANDIN, M.D.
Indianapolis

women; or what is the optimum dose to aid in the prevention of myocardial infarction, stroke, etc.?

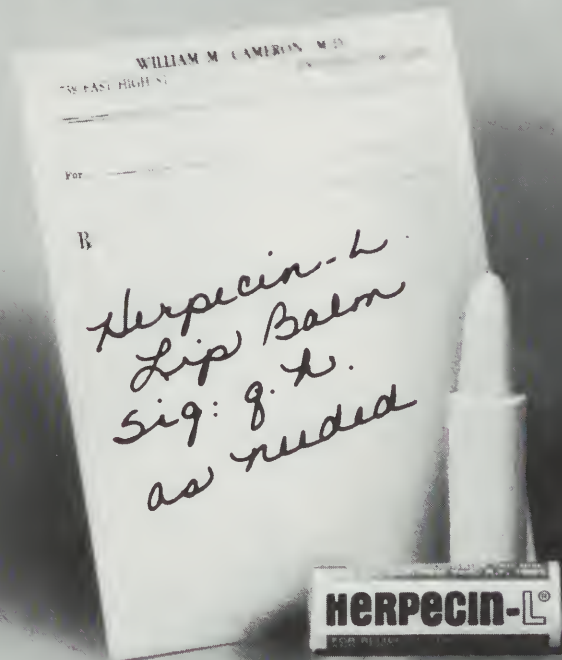
Researchers are attempting to answer these questions. The interaction of aspirin with other anti-platelet aggregation drugs such as Persantine (dipyridamole) and Anturane (sulfapyrazone) is also under intensive investigation.

It has been found that both platelets and endothelial cells of blood vessel walls produce a chemical called arachidonic acid (AA). Platelets convert their AA into a natural platelet aggregating agent-Thromboxane (A₂), while endothelial cells transform their AA into a natural inhibitor of platelet aggregation-Prostacycline.

It appears, therefore, it would be helpful to give a dose of aspirin that would inhibit platelets from producing the clot-favoring substance (A₂), but not at the expense of stopping the endothelial cells from making the protective anti-clotting agent-Prostacycline. Aspirin appears to do this in low doses, e.g., inhibit Thromboxane production in platelets, but high doses inhibit Prostacycline production of endothelial cells. Some studies suggest about 1 grain of aspirin would be ideal.

Current investigation is exploring the manner in which the body absorbs, metabolizes and clears aspirin from the system. Information, hopefully, will soon be forthcoming regarding the proper dose and usefulness of aspirin as an anti-coagulant.

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The Partnership of Professional Corporations

Medical Practice Management

We recently wrote about the fascinating new concept of "The Professional Corporation as a Partner." It presented a unique solution to group practices' dilemmas of different doctor-members having drastically different tax and retirement funding desires.

who would typically be left as employees of the partnership—and not of any of the corporations. This requirement seemed eminently fair although it presented some practical administrative problems. We also pointed out that the "partnership of p.c.'s" approach could

a pension plan which after the Pension Reform Act of 1974 ("ERISA") was amended to cover only Dr. Garland. The staff employees were not included since they continued to be employed by the partnership, not by Dr. Garland's corporation.

LEIF C. BECK, LL.B., CPBC
VASILIOS J. KALOGREDIS, J.D., CPBC
GEOFFREY T. ANDERS, J.D., CPA

For example, a partner in a group which does not wish to be a professional corporation could nevertheless incorporate himself; his solo corporation could be a "partner" and determine its own retirement plan contribution level. Or a presently incorporated group could reorganize into a number of solo corporations, with each such corporation setting up its own pension and/or profit sharing plan. Each doctor could then determine his own salary level and extent of retirement funding—a manner of "individualizing" the members' financial and tax planning.

As we previously described, the IRS had essentially recognized this concept so long as each corporate "partner" included and contributed proportionately for the staff

be very costly as to legal and accounting fees and retirement plan administrative expenses. The approach would typically be worthwhile only if large dollars were involved or if the members' financial concerns could not otherwise be reconciled.

New Development

In October 1979, two very striking court decisions were issued which will encourage doctors to take the "partnership of p.c.'s" approach. These two decisions hold that a corporate partner need not include the partnership's staff employees in its pension and/or profit sharing plan. The opportunity for dollar savings by excluding them could be dramatic.

Let us describe one of the decisions. In *Lloyd M. Garland, M.D., F.A.C.S., P.A.*,* the physician had personally been a partner with another doctor until he separately incorporated and caused his corporation to become the partner. Dr. Garland's corporation then adopted

The Tax Court approved Dr. Garland's corporate retirement plan even though the lay employees were excluded. It recited that the corporation did not control the partnership, neither as a matter of general law nor as specifically defined in the tax law, since the corporation was not a greater than 50% partner.

Implications

Under this legal position, a group of doctors could totally exclude its staff from retirement plan coverage by creating a partnership of their separate solo corporations! Or a member of an unincorporated group could incorporate himself and contribute to pension/profit sharing only for himself. Thus, the

*73 Tax Court decision No. 2, filed October 4, 1979. The other decision was similar though based on pre-ERISA law. It had been decided last year as *Thomas Kiddie, M.D., Inc.*, 69 Tax Court 1055 (1978), and the Ninth Circuit Court of Appeals has just refused the IRS' appeal. Thus, a higher court has essentially taken the same favorable position.

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thousands of dollars typically required to cover all employees on a proportionate basis could be saved.

While the IRS might appeal the *Garland* decision, we believe that the decision is legally correct and will stand until or unless Congress should prospectively change it. We therefore believe that such employee exclusion is an acceptable tax risk for groups having compelling reasons to become "partnerships of p.c.'s." One must, of course, critically consider the effect on staff morale and on the inter-doctor relationships if separating into individual corporations—the tax tail should not wag the dog.

The potential savings might be considered as justifying the substantial legal, accounting, retirement plan administration, etc. costs of creating and maintaining such a multi-corporation arrangement. Doctors who were previously reluctant to undergo those costs and details might now find them to be acceptable. And a particularly high-income doctor wishing to deflect dramatic amounts of his income to retirement (perhaps through a "defined benefit" pension plan keyed to his age) may now be willing to assume more than a pro-rata share of those costs since his potential advantage will be still greater.

Continuing Concerns

We believe the new decisions will properly influence many doctors to switch over to the "partnership of p.c.'s" approach, but there continue to be a number of serious concerns. First of all, the IRS will probably continue to resist excluding staff employees even if its position is somewhat of a lost cause. Among its alternate lines of attack would be the underlying inter-corporate partnership agreement, for none of the decisions have directly considered whether a corporate partner or the doctor himself is the actual earner of the partnership income. Therefore, the details of creating the entire relationship to withstand such attacks will have to be carried out with particular experience and care; too much is involved for casual handling.

Secondly, we think the result of these Tax Court decisions will be considered repugnant to the overall intent of tax-favored retirement plans. There will undoubtedly be proposals in Congress to change the law and they may pass. Tax law changes, however, are typically prospective in their application so that the savings accomplished before any deadline would not be lost.

We see the likelihood of legislation as a strong reason why groups considering a "partnership of p.c.'s" should move quickly.**

Thirdly, all the inter-doctor group practice concerns, the personnel management effects and the cost considerations previously discussed must be weighed. The corporate partnership relation will be worthwhile only if it avoids interfering with the good aspects of a successful practice. The need for this perspective is another reason why very conscientious, impartial advice is essential.

Conclusion

The "partnership of p.c.'s" now becomes an opportunity both for legitimate inter-doctor flexibility and for very substantial dollar savings. But its very dramatic aspects also call for perceptive evaluation and extreme care in handling the details. The rewards can be even greater than previously anticipated; but they can easily be lost.

**The net effect for some such groups may be to offset the very heavy first-year fees of creating the arrangement against the first year's retirement plan saving. If the tax law thereafter requires proportionate coverage of the partnership's staff employees, that ongoing situation should then be acceptable.



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Governor Bowen Accepts Appointment As Professor of Family Medicine

Editorial



Otis R. Bowen, M.D.

AN INVITATION by Dean Steven C. Beering, Indiana University School of Medicine, to Governor Otis R. Bowen to accept a teaching appointment at the School of Medicine has been approved by I.U. President John W. Ryan and the I.U. trustees. The appointment is effective Feb. 1.

Dr. Bowen had many attractive offers during the waning months of his record-setting eight-year service as governor but chose a teaching role in his own specialty as the most appropriate and satisfying.

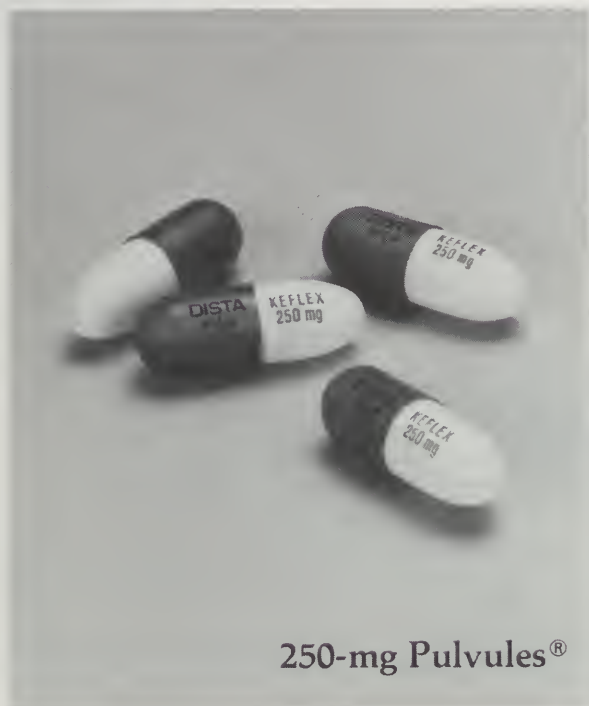
He will become a professor of family medicine on a full-time basis. His duties will include teaching medical students, treating patients, and help-

ing to expand the university's family practice and medical education programs.

Dr. Bowen's busy family practice in Bremen from 1946 to 1972, during which he also served most diligently in legislative roles, has prepared him for an important role in education, that of interesting medical students in family medical services. His example as a wise and careful practitioner will serve as an inspiration to many.

When President Ryan announced the appointment, he added: "Our physician-governor has been an adjunct member of the medical school faculty for several years, and we are delighted with the prospect of this appointment. We welcome this new relationship with enthusiasm."

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Whither Continuing Medical Education?

Editorial

ALL GOOD PHYSICIANS know they must continue to study all of their professional lives if they are to remain good physicians. The moves made a few years ago by the Academy of Family Physicians and subsequently by the AMA and other groups to set up some reasonable facilities and requirements for assuring that physi-

PAUL S. RHOADS, M.D.
Richmond

cians continue to keep up to date on medical knowledge and skills were heartily endorsed by most members of the profession.

In the American tradition of unbridled enthusiasm for new things that seem to be good, postgraduate courses in hospitals and medical centers, review outlines, and cassettes for tape recorders and television have become available in great numbers for continuing education of physicians. Unsolicited medical journals with a prestigious name or two on the editorial board come flowing across the desk of the busy practitioner to help him keep up to date. Their breezy articles, infiltrated with "quick stops" in larger print and no or very limited bibliographies, are designed to educate him in a hurry. Practically all of the advertising of the drug houses is directed to the same worthy end. Almost daily, directors of continuing education for physicians receive mailings from business firms who will show them how to plan their programs and "market their product" for a fee. The power struggle between the AMA and organizations comprising the LCCME over who should write the rules and make the certifications, hopefully now being resolved, points up the direction into which we are moving.

For "A National Symposium on Relicensure and the Continuing Education of Health Science Professionals" held in California in December 1978, the faculty listed was made up of nine

Ph.D.s, four M.D.s; two M.A.s, one in nursing and one the principal consultant for the Assembly Health Committee of the California State Legislature, one assemblyman and chairperson of the subcommittee on Health Personnel of the California State Legislature and other non-physicians in various educational posts. That their recommendations were made in the interests of improving the health of California and the nation, there can be little doubt.

This meeting is cited merely as an example of how enthusiastically non-physicians are getting into the act of regulating the physicians. All medical schools could profit from the advice of professional educators on *how* to teach what they have to impart to their students. One wonders if the non-medical people are in position to tell them *what* to teach. Particularly, one wonders if they should try to tell busy practitioners what they should learn and do.

Possibly it is time to apply the brakes to this proliferation of recommendations for examinations for re-certification and relicensure and for accumulation of continuing education Brownie points. To abandon the obvious benefits that have come from making good continuing education so readily available to physicians, nurses and other paramedical people would, indeed, be disastrous. However, all of us would welcome a relief from the burdensome and often ill-conceived regulations thought up by people not directly involved in patient care. Maybe we should go back to the once cherished emphasis on conscientious, competent, compassionate care of patients which seems not to have entirely disappeared from American medicine, and less emphasis on conformity to rules.

Perhaps our experts in education, whose help we surely need, might more usefully direct their expertise toward showing medical school admission committees how to recognize the students who have the potential to be our best physicians. When the need is so great for *complete* physicians—who are highly intelligent, but also capable of sustained enthusiasm, imagination, and real concern for the welfare of their fellow human

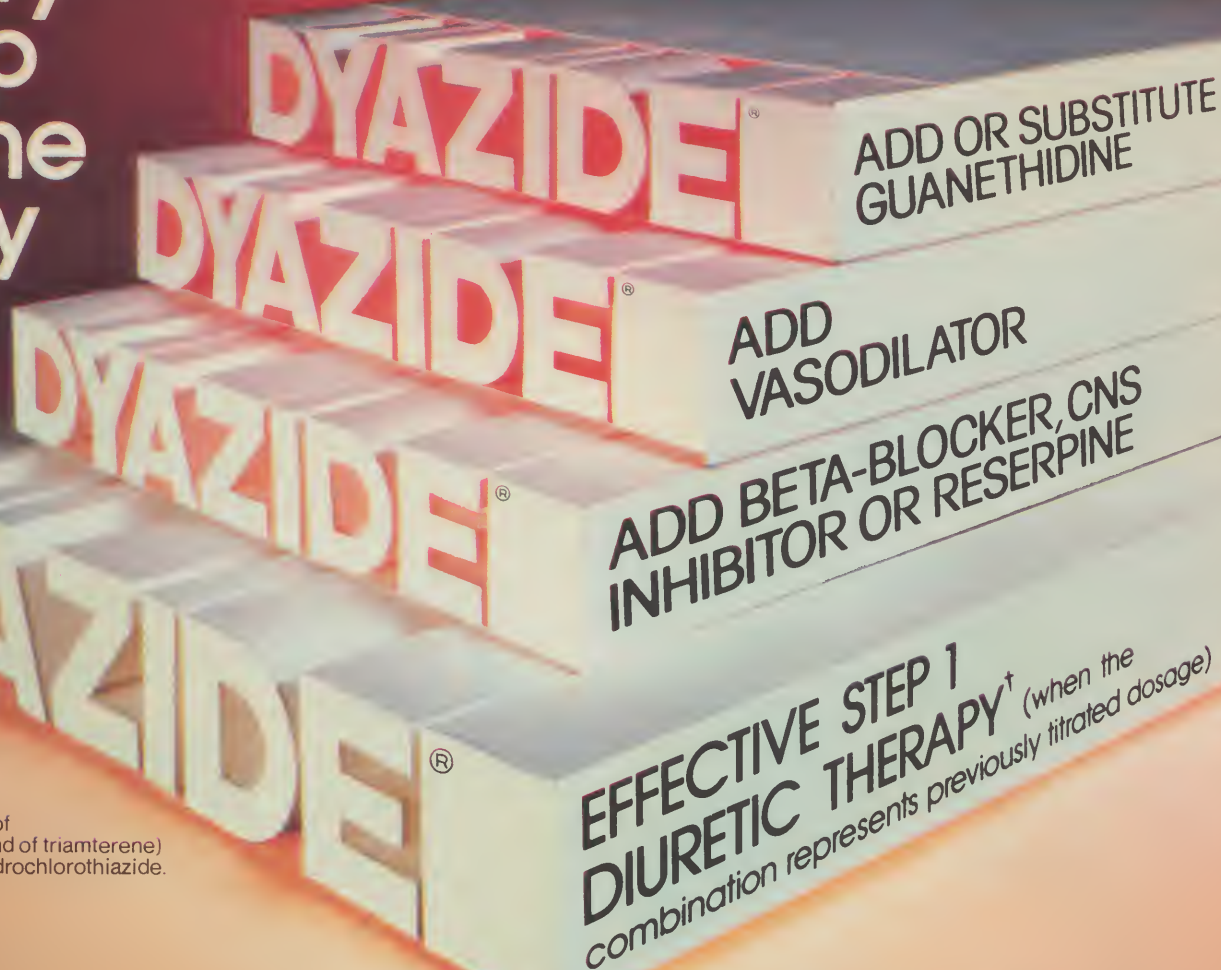
The author, a member of the Editorial Board of THE JOURNAL, is director of Continuing Medical Education at Reid Memorial Hospital, Richmond. He is a professor of medicine, emeritus, Northwestern University School of Medicine.

CONTINUED ON PAGE 29

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Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

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Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia, pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, throm-

bocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with

possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

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nents alone is rare. (For a complete list of side effects reported with Limbitrol, please consult full disclosure.)

References: 1. Poulson GW. *NY State J Med* 79:193-195, Feb 1979. 2. Hollister LE. Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology: From Theory to Practice*, edited by Borcho et al. New York, Oxford University Press, pp 134, 145. 3. Domino EF. Antipsychotic phenothiazines, thioxanthenes, butyrophenones and rauwolfia alkaloids, chap. 25, in *Drug Pharmacology in Medicine*, ed. 4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p.476. 4. Sovner R. Dilettropyromidal syndromes and other neurological side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, Lipton MA, DiMascio A, Kilham KF. New York, Raven Press, 1978, p.1021. 5. Donlon F, Stenson RL. *Dis Nerv Syst* 37: 629-635, 1976.

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Tablets 5-12.5 each containing 5 mg clordiazepoxide and 12.5 mg amitriptyline
(as the hydrochloride salt)

Tablets 10-25 each containing 10 mg clordiazepoxide and 25 mg amitriptyline
(as the hydrochloride salt)



Efficacy without a phenothiazine

Please see summary of product information on following page.

LIMBITROL® TABLETS Tranquillizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Use in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms including convulsions) similar to those of barbiturate withdrawal for chlordiazepoxide.

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated. Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) — bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients
- Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

- An initial dosage of three tablets is recommended
- Dosage may be increased to six tablets or decreased to two tablets daily as necessary
- Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

- T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness
- Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom — insomnia
- Entire dosage h.s. to take maximum advantage of the sedative effect

Your guide to patient management... when you decide medication is needed

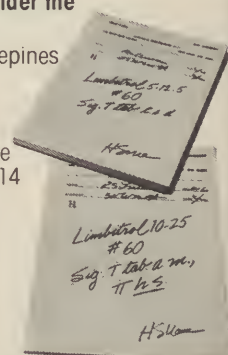
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



In moderate depression and anxiety

Limbitrol®

Relief without a phenothiazine



ROCHE PRODUCTS INC.
Manati, Puer Rico 00701

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To obtain Category 1 credit for this month's article, complete the quiz on Page 37.



Management of the Acute Ingestion Of Poison in Children

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Indianapolis

ACCIDENTAL POISONING is the most common medical emergency involving young children. According to the National Poison Center Network, approximately five to six million ingestions are reported in the United States annually. Arena states that approximately 90% of poisonings occur in children, with 75 to 80% involving children under five years of age. There are an estimated 200 to 300 childhood deaths each year due to poisoning.

Indiana statistics are very similar to national estimates. The Indiana State Board of Health reports there have been 31 deaths in children due to poisoning in the past four years,

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and the Indiana Poison Center is currently receiving about 40 calls each day. Since many accidental ingestions go unreported, the true number is obviously greater than the estimates given.

It is the purpose of this report to review the principles of management of accidental poisonings.

Since very few physicians, other than full-time toxicologists, can become sufficiently knowledgeable to handle all of these poisoning episodes, it is necessary to have available current reference material and the telephone number of a poison control center. Recommended references and resources are listed in *Table 1*.

Basic Treatment

It should be pointed out that the basic treatment for any acute poi-

soning is mainly symptomatic and supportive. This is usually much more effective than any heroic measure which is likely to be unnecessary and potentially harmful. A recent statement of the National Poison Center Network observed that of all poison cases reported to the Regional Center some 70% represent situations in which no serious problem exists and in these home management represents a safe and adequate solution. About 15% of the cases reported can be managed at home under close direction by the Regional Center staff with telephone follow-up as often as needed to ensure complete recovery of the patient. About 15% of the reported cases require more treatment by medical professionals. Fewer than 1% of this final 15% may ultimately require transport to

a Regional Center medical facility for highly specialized treatment.

Types of Cases

Poison cases will present in one of three ways. The patient will present as:

- The ingestion of a known toxic substance.
- The ingestion of an unknown substance which may be a poison.
- An illness of undetermined etiology in which poison must be considered.

Management Principles

The proper management of acute ingestion of a hazardous product depends upon an orderly plan and understanding of the individual problem.

TABLE 1

Recommended References and Resources

1. Clinical Toxicology of Commercial Products: Gosselin, Hodge, Smith and Gleason. 4th Edition, 1976.
2. Poisoning—Toxicology, Symptoms and Treatment: Arena, 3rd Edition.
3. Physicians' Desk Reference.
4. Handbook of Poisoning: Dreisbach, 9th Edition.
5. Poisonous Plants of the United States and Canada: Kingsbury, J.M. Prentice Hall, 1964.

**Indiana Poison Center
Wishard Memorial Hospital
1001 West 10th Street
Indianapolis, Indiana
1-800-382-9097**

Arena lists four principles for management of an acute ingestion:

- Identification of the drug or chemical as quickly as possible. Many times it is more important to know what a substance is not, than what it is.
- Evacuation of the poison from the stomach except when contraindicated.
- Administration of a specific antidote, if such is available.
- Symptomatic and supportive treatment as indicated.

In the majority of cases of ingestion

of poisonous substances, the material is readily identifiable either by a witness or by finding the child with a partially emptied container. Treatment can be started when the mother calls the emergency room or physician's office.

Initial Procedures

The appropriate sequence of events should be:

1) Obtain the name of the product, its ingredients, and the manufacturer's name and address. Also determine the time of ingestion and amount presumed to be ingested.

2) Determine whether or not the ingested substance is a potential poison. It should be noted that most materials commonly ingested are not potentially dangerous and home management represents a safe and adequate solution. *Table 2* lists the most commonly ingested non-toxic household products.

3) If the substance is in fact a potential poison, emesis should be induced, unless contraindicated. Emesis is contraindicated with ingestion of petroleum distillates (aliphatic hydrocarbons), ingestion of caustic agents (lye or strong acids), ingestion of strychnine, or if the patient is comatose or stuporous. Syrup of ipecac is the emetic of choice. A one-ounce bottle may be purchased without a prescription and should be kept in homes with children nine months of age or older. This should not be given without a doctor's order. Although ipecac is cardio-toxic, it is considered safe even if the entire one ounce is accidentally ingested. The dose of syrup of ipecac and directions for administration will be discussed later in this article. If no syrup of ipecac is available in the home, the child should be given two to three glasses of fluids, water or milk, and emesis induced by mechanical means such as the use of the blunt end of a spoon to gag the child. If fingers are used to gag the child,

TABLE 2

Commonly Ingested Household Products Which Are Non-Toxic or of Low Toxicity*

1. Adhesives (most)
2. Ball point pen inks
3. Bathtub floating toys
4. Battery (dry cell)
5. Bubble bath soaps, (detergents)
6. Candles (paraffin or beeswax)
7. Caps (toy pistols)
8. Cigarettes or cigars
9. Cosmetics (most)
10. Contraceptive pills (less than 10)
11. Crayons (marked AP, CP, or CS)
12. Dehumidifying packets
13. Detergents (most) (not electric dishwasher)
14. Deodorants
15. Fish bowl additives
16. Golf balls
17. Ipecac syrup
18. Matches—less than 20 wooden matches or 2 books of paper matches
19. Paint—indoor (less than 1% lead)
20. Pencil—lead graphite and coloring
21. Play-Doh and modeling clay
22. Polaroid picture coating fluid
23. Putty (less than 2-3 oz.)
24. Sachets (essented oils and powders)
25. Shampoos (liquid)
26. Shaving creams
27. Silly Putty
28. Soaps
29. Sweetening agents
30. Teething rings
31. Thermometer (mercury)
32. Toothpaste
33. Vitamins with or without flouride
34. Writing ink (blue/black) ferrous so4.

*The Nontoxic Ingestion, Mofenson and Greensher *Pediatric Clinics of North America*—Vol. 17, No. 3, Aug. 1970

care must be taken not to injure the finger. Concentrated salt solutions should not be used because of the possibility of causing electrolyte imbalance, specifically hypernatremia.

4) The child should be brought to the Emergency Room or physician's office.

5) The bottle or container should be brought, along with labels and the remainder of the product.

6) Any vomitus should be brought with the patient in a clean container.

7) Parents usually are upset and

should be reminded to drive carefully or have a neighbor drive.

8) While the patient is enroute, reference material or a poison control center may be consulted and any necessary supplies and equipment assembled.

When the child who has ingested a hazardous substance reaches the Emergency Room or doctor's office, treatment should proceed in an organized and deliberate manner. The clinical conditions of the child should be determined immediately. Respiratory distress, shock, coma, or seizures must be treated appropriately.

Identifying the Poison

Next, one must identify the poison and delineate potential problems. One should determine the time of ingestion and the amount of product ingested (number of tablets or quantity of liquid). The usual swallow in a child is three to five ml.

If the ingested substance is unknown, the following may be helpful in identification. Send vomitus, the first lavage specimen, the first urine specimen and 10 cc. of heparinized blood to toxicology. Give your toxicologist as much information as possible to help in the identification of the poison. A urine specimen may quickly be tested with a Phenistix or ferric chloride to determine the presence of phenothiazines or salicylates. The Phenistix examination should be done under a fluorescent light with a white background. The color changes are immediate and last very briefly.

Also, the physical examination may demonstrate a cluster of signs and symptoms which will point to a specific ingestant or type of ingestant. Table 3 lists several of these.

If necessary, a thorough search at the house where the ingestion took place should be made for any possible poison.

TABLE 3

Symptoms and Signs	Possible Poison
Agitation, hallucinations, dilated pupils, bright red color to the skin, dry skin, and fever.	Atropine-like agents, LSD
Marked activity, tremors, headache, diarrhea, dry mouth with foul odor, sweating, tachycardia, arrhythmia, dilated pupils	Amphetamines
Slow respirations, pinpoint pupils, euphoria, or coma.	Opiates
Salivation, lacrimation, urination, defecation, miosis, and pulmonary congestion.	Organic phosphates or poison mushrooms
Sleepiness, slurred speech, nystagmus, or ataxia.	Barbiturates or tranquilizers
Coma, convulsions and cardiac arrhythmias.	Imipramine—Tricyclic anti-depressants
Hypernea, fever and vomiting.	Salicylates
Oculogyric crisis, ataxia and unusual posturing of head and neck.	Phenothiazines
Nausea, vomiting, sweatiness, and pallor are early manifestations; late manifestations include stupor and signs of liver failure.	Acetaminophen

Despite the fact that identification of the poison is important, it must be remembered that the patient must be supported symptomatically even if the poison is not identified. Therefore, too much time should not be spent in search of the poison at the expense of the patient. If possible one physician should initiate general and supportive care while another is attempting to identify the poison.

Role of the Laboratory

The role of the laboratory in the diagnosis and management of poisonings is obviously important. Most hospital laboratories have the capabilities of providing this support. The physician must be realistic in his demands from the laboratory. In many cases you do not need to know the levels of a poison in the body since most poisonings are treated with good symptomatic and supportive care rather than with a specific antidote or antagonist.

The laboratory needs to provide basic, standard determinations such as CBC, blood glucose, electrolytes, urinalysis as well as blood gases and pH determinations. A Dextrostix may rapidly give a blood sugar estimation in the emergency room. In addition, the laboratory

should be able to provide salicylate determinations, serum iron and total iron binding capacity, barbiturate and other anticonvulsant levels, theophylline levels, with hemoglobin measurements, cholinesterase measurements and phenothiazine presence. The laboratory also must be prepared to send out specimens to a commercial laboratory.

Treatment

If the ingestant is a poison, it should be removed from the digestive tract. This should be attempted even as long as three to four hours post ingestion. Unless contraindicated as described above, emesis is the most effective means of emptying the stomach. The emetic of choice is syrup of ipecac. The dosage of this is 10 cc. for children less than one year of age. This dose should not be repeated. For children over one year of age the dose of ipecac is 15 cc., which may be repeated in 15 to 20 minutes. The ipecac should be followed by two to three glasses of water and the child should be kept in motion. Because of the cardio-toxic properties of ipecac, its use may be contraindicated with the ingestion of an anti-emetic such as an antihistamine. Also, if

the child does not vomit in 30 minutes, the ipecac must be removed by gastric lavage.

Gastric lavage, which is not as effective as ipecac, should be reserved primarily for the unconscious patient requiring gastric lavage should have a cuffed endotracheal tube in place. The largest possible gastric tube should be used. The patient should be placed on his left side with his head hanging over the table. Either half normal or normal saline may be used. Small aliquots, five ml/kg., should be used so that gastric contents are not forced past the pylorus. Remember, the initial gastric aspirate should be saved for toxicology. Lavage should be with one to two liters. If indicated, activated charcoal or a specific antidote may be left in the stomach. To prevent aspiration, pinch off the gastric tube before removing.

Gastric lavage also should be used post emesis in iron ingestion using a mono or di-sodium phosphate solution (1/2 strength Fleets enema).

As with emesis, gastric lavage is contraindicated with ingestion of aliphatic hydrocarbons, strong corrosive agents and strychnine.

In general, cathartics are of little use in toxic ingestions. Magnesium sulfate or magnesium citrate may be used.

Activated Charcoal

The ideal treatment for poisonings would be a specific antidote. Unfortunately, only a handful of such antidotes exist. The so-called universal antidote, which is a combination of activated charcoal, tannic acid and magnesium oxide, is neither universal nor an antidote. The tannic acid and magnesium oxide actually diminish some of the activated charcoal's binding ability and the mixture itself may be hepatotoxic. Consequently, there is no place for use of this mixture. It is

also well to point out that burnt toast is not activated charcoal and has no absorbant properties.

The use of activated charcoal, because of its potential absorptive quality, is well established. It is effective in the following ingestions:

Amphetamines	Methylene blue
Aspirin	Digitalis
Atropine	Oxalates
Barbiturates	Phenolphthalein
Morphine	Phosphorus
Camphor	Strychnine
Cocaine	Potas-permanganate
Doriden	Mercuric chloride
Ipecac	Darvon
Iodine	Sulfanilamides
Nicotine	Penicillin
Opium	Chlorpheniramine

It is not effective against:

Boric acid
Ferrous sulfate
Sodium Hydroxide
DDT
Any drug insoluble in an aqueous solution
Cyanide
Caustic alkali
Mineral Oil

There is no known contraindication to the administration of charcoal. Since it absorbs ipecac, it should be administered after emesis. If the ingested substance is absorbed by charcoal, put charcoal down before lavage and then give more after lavage.

The recommended dose is five to ten times that of the ingested material; usually give one to two tablespoons in eight ounces of water.

Other Antidotes

A few antidotes should be mentioned, although one could just as well include them in treatment protocols:

1) **Narcan**—A pure narcotic antagonist, it is effective against: codeine, Darvon, Demerol, Lomotil, methadone and morphine.

Narcan be given as a diagnostic trial when central nervous system depression is felt to be due to narcotic ingestion. The dose is 0.01mg/kg IM or IV, repeated as necessary.

2) **Physostigmine**—An anticholinergic antagonist, it is effective against atropine, belladonna alkaloids, and tricyclic antidepressants (Tofranil and Elavil). Dosage 1mg. IM or 0.5mg. IV slowly over two to three minutes. May be repeated in two to five minutes if no response. With response, dosage and interval between doses should be adjusted according to symptoms.

3) **Atropine Sulfate**—An antagonist to the organo-phosphates and carbonate cholinesterase inhibitors used in insecticides. Dosage, for children, 0.05mg/kg. as initial dose; continued doses will be necessary.

4) **Desferal** (deferoxamine)—A chelating agent in iron poisoning. Dosage 20mg/kg. IM every four to six hours. The oral use is controversial. We do not use it orally.

5) **Benadryl**—Will reverse the extrapyramidal symptoms of phenothiazines (ataxia, torticollis, oculogyric crisis). Dosage 1 to 2 mg/kg. IV.

6) **Oxygen**—By inhalation for carbon monoxide.

7) **Ethanol**—For ethylene glycol and methanol poisoning. Dosage 0.75mg/kg. IV; every four hours for four days.

8) **For Cyanide Poisoning**—Amyl nitrite inhalation followed by sodium nitrite 6 to 8ml. 3% IM or IV (slowly) followed with sodium thiosulfate 12.5mg. IV slowly. This is available in a cyanide kit and should be in every Emergency Room. Specific instructions are spelled out in detail.

9) **For Amphetamines**—Chlorpromazine will help hyper-excitability. Dosage .5 to 1.0mg/kg. IM.

Plant Poisonings

The accidental ingestion of plants poses a special problem for the physician, since few of us can readily identify a given plant even if we have a sample to examine. There are about 700 species of poisonous

plants on our continent, including outdoor plants and shrubs as well as indoor plants. Plant ingestions account for perhaps 5% of accidental poisonings. Probably about 90% of these ingestions are harmless.

A recent study at the National Poison Center revealed over 3,500 cases of plant exposures in a six-month period in children under five years of age. Nearly half of these involved children under one year and in nearly all of these cases the children had ingested the leaf of the plant. Roughly, the toxic substances of plants can be categorized into alkaloids, glycosides, resinoids and organic acids. Many tempt the young child with bright berries, edible looking pods, leaves or nuts. To compound the problem, many are known by a variety of names.

Identification can sometimes be made by the parent or caretaker. Reference material that is helpful includes *Edible Wild Plants* by O.P. Wedsgur, and *Poisonous Plants of the United States and Canada* by Kingsbury, as well as Arena's *Toxicology*, third edition. We at Wishard Memorial Hospital also rely on a consultant botanist for help under special circumstances.

If the material from the ingested plant cannot be described or identified, one should proceed on the assumption that it might be poisonous and vomiting should be induced.

The severity of the symptoms in these cases of plant ingestion depends on the amount ingested as well as the general health of the patient.

Treatment of most plant exposures will include removal or absorption as well as supportive care. There also are specific agents in the event that the toxic substance is a cyanogenic glycoside or an anticholinergic alkaloid. Plants containing cyanogenic glycosides include hydrangea, apple, American plum, cherry laurel, cultivated

cherry, peach and wild black cherry. Their symptomatology includes nausea, vomiting, abdominal pain, diarrhea, difficulty in breathing, muscular weakness, dizziness, stupor, convulsions after evacuation with ipecac or lavage. A cyanide antidote package may be necessary. The three drugs contained in the package are amyl nitrite, sodium nitrite, and sodium thiosulfate. These drugs are given in immediate succession and dosage schedules are included in the package.

Plants that contain anticholinergic alkaloids include poisonous mushrooms, Bittersweet, Black Night Shade, Jerusalem cherry, Jimson weed, red sage or wild sage, potatoe leaves and wild tomatoe. Their symptomatology includes fever, visual disturbances, burning mouth, thirst, hot dry skin, headache, confusion, dilated pupils, delirium, hallucinations and pulse disturbances.

Physostigmine is effective for reversal of the toxic effects of the belladonna alkaloids—atropine, scopolamine, homatropine. Its use is indicated to reverse the toxic effects on the central nervous system caused by drugs capable of producing anticholinergic poisoning. These central effects include hallucinations, delirium, disorientation, hyperactivity and anxiety. Peripheral effects include tachycardia, hyperpyrexia, mydriases, vasodilation, urinary retention, decrease in sweating and salivation and decrease in secretions of pharynx, bronchi and nasal passages. In some instances, cardiac arrhythmia occurs.

Dosage of physostigmine salicylate is 1 to 3mg. IV slowly. Effect is noted within 20 minutes and lasts 15 to 30 minutes. Dose can be repeated. Overdose can cause a cholinergic crisis and can be treated with atropine.

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Is Acne a Bacterial Disease?

Clinical Notes

EVERY SENIOR medical student should know that the primary lesion in acne is the comedo. Although pustules are not necessarily associated with these lesions, *Propionibacterium acnes* organisms are found in large numbers within a comedo as it forms. Experimental comedones in rabbits do not contain *P. acnes* and are not accompanied by pustular lesions. The

formation and an increased number of anaerobic bacteria. In pustular acne, neutrophilic leukocytes are attracted by bacterial chemotaxins.⁴ The principle one of these is perhaps identical with the lipase which splits triglycerides into glycerin, which is utilized by the organism,⁵ and free fatty acids, which are not. The left-over free fatty acids serve to reduce growth of *P. acnes* by a

probably represent the most important chemotactic products in comedones. Chemotaxins produced by these organisms vary not only with the particular bacterial strain, but also with the contents of the culture media.¹⁰ For instance, more cytotoxins are produced when the organism is cultured on callus than when it is grown on standard media.

JERE D. GUIN, M.D.
Kokomo

bacterial flora of the hair follicle comprises *P. acnes*, *Staphylococcus epidermis*, and *Pityrosporon* sp.¹ The contribution of the last two is poorly understood, but circumstantial evidence suggests that the role of *P. acnes* in pustular acne is important.

Propionibacterium acnes was formerly classed as *Corynebacterium acnes* because of its morphology. However, because of serologic relations, cell wall composition, DNA base composition, and the ability to form propionic acid from lactate, *Propionibacterium* is the preferred classification.

Corynebacterium parvum, used in oncology, is probably synonymous with *P. acnes* and the latter name is preferred. *Propionibacterium acnes* has been subdivided into groups I and II and group II has been further subdivided.² Sometimes the name *P. acnes* is used to include both groups and sometimes it is used specifically to mean group I, in which case group IIb is called *P. granulosum*.

Propionibacterium acnes is less common in the skin before puberty but becomes common following the onset of puberty,³ when a hormonally induced increase in lipid production may lead to comedo

feedback mechanism.⁶ They were once thought to induce inflammatory lesions of acne but this mechanism is not operative at physiologic levels.⁷

Propionibacterium acnes is probably important immunologically since there is a parallel between the severity of acne, the presence of antibody levels and delayed hypersensitivity to the organism. The cell walls of *P. acnes* are mitogenic for lymphocytes⁸ and the organism activates both the classical and alternate complement pathways. Patients with acne conglobata may have a reduced cell-mediated immune response, but it is not known whether this is primary or secondary. Since neutrophilic leukocytes release the enzymes bound in lysosomes in response to *P. acnes* only when serum antibodies are present,⁹ it would seem that the destructive effect of pustular acne is partly, if not largely, dependent upon the immunologic status of the patient.

While complement is present within acne lesions, it is probably not an early event since it is not present in comedones¹⁰ and the dialyzable small molecular weight cytotoxins produced by *P. acnes*

The fact that antibiotics benefit pustular acne has been widely used as proof that bacteria are important in the pathogenesis of that disease. However, even today, the mechanism by which antibiotics benefit acne is not fully understood. Only those antibiotics which reduce the number of *Propionibacterium acnes* organisms in surface lipids are known to be effective clinically. Although the level of *P. acnes* within comedones is probably very important, it is not easily followed. In unpublished studies, Huber and I found the number of *P. acnes* organisms in approximately a milligram of comedonal material would vary from 1×10^4 to 5×10^8 in the same individual at the same time. Obviously, with such a great variation, it would require an enormous amount of material to show a significant shift with treatment. The level of free fatty acids is used as a marker of bacterial activity and it may be reduced even when bacterial counts are not. Generally, however, effective antibiotic treatment is followed by reduction in both measurements.

The minimum inhibitory concentration (MIC) of a particular antibiotic varies with the specific bacte-

rial strain of *Propionibacterium acnes*.¹¹ Approximately 20% of patients started on topical erythromycin or clindamycin will develop a strain resistant to that antibiotic¹² and following discontinuance of therapy, the "wild" strain returns. Extremely high comedonal concentrations¹³ may contribute to the tendency for resistant strains to appear.

Systemic antibiotics are not easy to find within comedones and the reason for this is not clear (it may be technical). Tetracycline therapy in acne does not produce a significant drop in lesion count unless it is combined with other treatment.¹⁴ However, it is possible to satisfactorily treat acne even without antibiotics or standard topical therapy¹⁵ by using agents which destroy sebum production. While this might seem to be due to the removal of the comedogenic stimulus, the loss of a substrate for *P. acnes* could also be important.

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Whither Continuing Medical Education?

CONTINUED FROM PAGE 18

beings—the characteristics other than grades should be thoroughly explored. Present aptitude tests supply some dimensions. Possibly more reports from high school and college teachers, ministers, athletic coaches, Boy Scout leaders, and the like, along with personal interviews with the most likely candidates, might make for better candidate selection. The task is, indeed, complex and difficult, but important enough to engage the interest of our top educators. There are, no doubt, as many medical school candidates as in the past who have the potentialities so clearly needed. In these difficult times they must in some way be recognized and given the opportunity to develop under skilled medical teachers. For students of special promise the fairly good financial arrangements now available should be expanded if required.

First of all, admission committees must decide what kind of physicians our country wants. That should not be a difficult problem. Public opinion polls are popular in this country. It is likely that most people would opt for physicians who have hard-nosed competence in their various fields, and at the same time are compassionate, industrious and considerate of the persons and pocket-books of their patients. There probably would not be lack of understanding of the need for researchers and teachers, too.

We have young people in all of our medical schools who have entered with excellent credentials of the kind all of us desire. We just need more of them. Such young people, given the present unexcelled opportunities for continuing education, will choose what they need without all the ballyhoo which seems to be developing to regulate them into conformity and sometimes mediocrity.

Antepartum Air Embolism

A RECENT MATERNAL death caused by air embolism prompted the author to look up the cases of air embolism from the files of the Indiana Maternal Mortality Study Committee. While this is one of the less common causes of maternal mortality, it is felt that those physicians doing obstetrics should

In an extensive review of the world literature, Nelson⁷ in 1960 provided the following information: Of the total of 217 cases, 106 (49%) occurred in the course of attempted criminal abortion. Seven cases (3%) were noted during spontaneous or therapeutic abortion or during douching in early pregnancy.

be placed on those deaths secondary to bizarre sex activity.

Five Indiana case reports are summarized below. One was due to attempted abortion, in one the cause was unknown, and in three instances it was felt that abnormal sex play was the etiology.

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be aware of this potential danger to their antepartum patients. With the changing moral climate, it is possible that we will see more maternal deaths due to this cause.

Literature Review

In 1667 Redi¹ produced death experimentally in animals by the injection of air. In 1827 Madgendie² was first to describe air embolism complicating surgery. He was operating upon a patient with a neck tumor. In 1845 Lionet³ reported the first case of air embolism complicating an obstetric delivery. This patient died of air embolism upon extraction of the placenta.

In 1946 Benjamin⁴ reported a case of fatal air embolism through an unusual sex act. In 1953 Pugh⁵ reviewed the subject of coitus in late pregnancy. In 1959 the *Ohio State Medical Journal*⁶ reported three cases of antepartum air embolus.

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An additional 20 cases (9%) occurred in pregnancy from other causes. Forty-seven instances (22%) were recorded during labor and delivery and the remaining 37 cases (17%) occurred in the puerperium.

Aronson and Nelson⁸ in 1967 published an article on air embolism due to bizarre sex activity. Herzig⁹ and Silver¹⁰ in 1968 added to the literature. Munsick¹¹ in 1972 reported a case of fatal air embolism as an accidental catastrophe in a patient who was undergoing a suction therapeutic abortion.

In obstetrics, air embolism may occur antepartum, intrapartum, and postpartum. In the antepartum period most articles mention etiologies such as criminal abortion, hygienic vaginal douches, the knee-chest position (exercise), powder insufflation as a treatment for vaginal infections, and variations of sex play. This paper will discuss deaths that occur in the antepartum period of pregnancy. Particular stress will

Case #1

The patient was a 25-year-old white woman, G2, P1, whose EDC was early in April 1964. She had an uneventful prenatal course prior to her demise.

On the evening of Dec. 6, 1963, she was having coitus with her husband, there was a gush of fluid from the vagina, she gasped and stopped breathing. Her husband started artificial respiration and called the fire department. When the patient arrived at the hospital at 10 p.m., she was dead.

An autopsy revealed the presence of air within the periuterine and adnexal vessels and beneath the serosa of the left side of the uterus. Large amounts of air were found in the right side of the heart.

There was no evidence by history or examination of the cervix and vagina of any manipulative procedure. There was no evidence of trauma in any other area of the body.

Committee Impression: Air embolism, probable sex play related.

Case #2

This 22-year-old white woman, G3, P2, was found prostrate on the floor of her home by her husband with marked respiratory distress. She was 4-5 months pregnant. She was admitted to the hospital at 2:40 a.m., Nov. 18, 1966. Blood pressure was 88/0. There was marked cyanosis, pallor, and slow pulse. She was given supportive care consisting of digitalis, oxygen, airway, suction, and IV fluids. In spite of these measures, she expired at 3:15 a.m., Nov. 22, 1966.

Interrogation of the husband revealed the following statement: "I might as well go ahead and tell you. On the day of admission I inserted a tube that she used to draw off urine into the womb and blew into it. A friend of my wife told her that was the way to start labor."

A coroner's autopsy revealed the following:

1. Extensive ventricular septal hemorrhage below the aortic valve.

2. The right auricle was opened under water and it contained gas or air totaling 5 cc's. Considerable dilatation was noted in the right ventricle and auricle.

3. Linear hemorrhage in the decidua vera, extending from about 1 cm. above the internal os of the endocervix and into the fundus of the uterus. Along this hemorrhage, three hematomas were found, the largest of which was 3 x 2 cm. This hemorrhage was unquestionably produced by insertion of a foreign body, with moderate force.

4. Macerated fetus.

Committee Impression: Air embolism, abortion related.

Case #3

The patient was a 22-year-old married black woman, P1, G3, AB1. She had had prenatal care and was considered to have a normal pregnancy.

The patient was found in a collapsed state at home. Local physi-

cian was called and an ambulance ordered. The fire department gave the patient external cardiac massage and artificial areation of the lungs until the physician arrived. The patient was rushed to the Emergency Room. She was pronounced dead on arrival. An emergency cesarean section was performed. A term male infant was delivered which lived 14 hours. An autopsy was performed which showed:

- 1) Postpartum uterus with evidence of postmortem cesarean section, and

- 2) Heart and circulation. Air embolus of the pelvic veins, inferior vena cava, right atrium and ventricle, and coronary vessels.

Committee Impression: Air embolism, unknown cause.

Case #4

The patient was a 21-year-old woman, G2, P1, at 41 weeks gestation at the time of her death. She had had an uncomplicated prenatal course.

On Oct. 18, 1975, the patient was resting in bed. Her husband left the room for 5 minutes and upon his return stated that his wife appeared to be "dead". An ambulance was called and she was taken to the hospital.

Electrocardiogram showed an agonal pattern. An endotracheal tube was placed and the patient bagged. She received external cardiac massage. IV fluids were started.

Obstetric and Pediatric consultation were obtained. Examination of the abdomen showed a term sized uterus with a single fetus. No fetal heart tones were heard. Pelvic exam revealed no abnormalities of the external genitalia. There was no blood on the vulva. Bimanual examination revealed no clots in the vagina. Cervix was 25% effaced and 3 cm. dilated. The bag of waters was intact. The presenting part was at a -

1 station. Resuscitative efforts were discontinued, when there was no cardiac activity on the electrocardiogram. She was pronounced dead at 10:30 p.m., Oct. 18, 1975.

An autopsy showed air embolism.

- a. Ratrium and ventricle
- b. Periuterine venous plexus
- c. Iliac veins
- d. Superficial gastric veins
- e. Superficial epicardial veins

Committee Impression: Air embolus, probable sex play related.

Case #5

The patient was an 18-year-old single black woman, G2, P0, Elective AB1, who was dead on arrival at the hospital emergency room at 3:20 a.m. on Dec. 3, 1978. She was 28 weeks pregnant and had not had prenatal care.

She and her boyfriend were "watching T.V. and talking" when the patient abruptly gasped for breath and held her chest. Her friend gave her mouth to mouth resuscitation and called for an ambulance. The ambulance personnel performed cardiopulmonary resuscitation and rushed her to the hospital. She was dead on arrival. There were no fetal heart tones. She was unsuccessfully resuscitated. Impression was air or amniotic fluid embolus.

A complete autopsy protocol is available. Final diagnosis was 1) Air embolus, massive. Air within the uterine veins, inferior vena cava, right ventricle, pulmonary arteries, pulmonary veins, and aarotid arteries. 2) Petechial hemorrhages, cerebral white matter, multiple, secondary to #1.

It was the opinion of the coroner that the patient died as a result of air embolism.

Committee Impression: Air embolism, probably sex play related.

Incidence

There is great difficulty in deter-

mining the incidence of gas embolism in pregnancy because of the current practice of including all types of embolism under the general term "pulmonary embolism" in maternal mortality reports. The Ohio study⁶ on maternal deaths due to air embolism report an incidence of approximately 1% of the total cases in their files. The Indiana experience is similar.

Clinical Picture

The clinical picture may vary from patient to patient. Nearly always the sequence is quite sudden. In the absence of anesthesia, convulsions occur regularly and marked cyanosis is noted. In general, the rapidity of death is related to the amount of air introduced.

Diagnosis

The diagnosis is made by auscultation of the heart. A classic "water wheel" sound is heard. If the situation is suspected, aspiration of the right ventricle through the chest wall will be productive of air. If thoracotomy is performed, then palpation of air within the right ventricle is present. Autopsy findings include air in the right ventricle, air in the pelvic vessels, air in the cerebral vessels (rare), pulmonary edema, and visceral congestion.

Physiology

Nelson⁷ concluded that 500-600 ml. of air administered in a single rapid injection would be uniformly fatal to man (7 ml. per kilogram), and if the introduction of air was prolonged for as much as 1-2 minutes, the fatal amount would be half that value. The vagina is a distensible organ and can easily contain a fatal amount of air. The air dissects through the cervical canal and beneath the membranes to reach the subplacental venous system. The air then progresses to the inferior vena cava and to the right heart in a

very rapid manner. Frothing within the right ventricle effectively blocks the outflow of blood to the lungs and anoxia occurs.

Psychosexual Consideration

With our changing morals, cunnilingus is not uncommon. Kinsey et al¹² noted considerable variation in sexual technique. Fifty-four per cent of the married couples in their sample used cunnilingus as a precoital petting technique.

Variation in sexual technique may well be tried by many couples because of real or imaginary prohibitions that occur during pregnancy. The potential hazard of "blowing in the vagina" during pregnancy should be more widely appreciated by physicians and obstetricians in particular.

Pugh and Fernandex⁵ found no relationship between coitus at any time in the last trimester and premature rupture of membranes, premature labor, or bleeding, and they concluded that "there is no necessity for an emphasis on abstinence during the final weeks of pregnancy."

Treatment

The treatment of gas embolism in pregnancy should begin with prevention. Women who are pregnant should be specifically instructed during their prenatal care to avoid the introduction of douching solutions and air into the vagina such as might occur with oral genital sex play.

Treatment includes the discontinuance of the source of the gas, placing the patient in the head down left lateral position, the administration of oxygen, the aspiration of the right ventricle through the chest wall if the heart is still beating, and immediate thoracotomy and direct aspiration of gas from the right ventricle in the case of cardiac arrest. Anti-shock measures are used, but it is unlikely that in-

travenous medication or blood would benefit an already overloaded right sided heart failure.

Summary

It is hoped that this paper will provide information with regard to fatal air embolism in the antepartum period. Stress should be placed on prenatal instruction with regard to explaining to the patient that oral genital sex play may be destructive to the pregnant woman. Herzig and Majola⁹ stated that "newer concepts of sex education have demonstrated that coitus and other means of achieving sex satisfaction are safe for the pregnant woman. The only exception is the forceful blowing of air into the vagina."

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DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosterone-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunuchism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioğlu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Measured Blood Loss at Delivery

ALTHOUGH SOME post partum hemorrhage may occur after transfer of the obstetric patient to the recovery room, the majority of blood loss usually occurs while in the delivery room. Interest in this subject led me to develop an under-the-buttock drape to measure blood loss at delivery.

The purpose of this paper is to evaluate the usefulness of a new under-the-buttock drape to measure blood loss during the third stage of labor and immediately after delivery. Post partum hemorrhage is defined as loss of blood in excess of 500 ml during the first 24 hours after birth of an infant.

Method

The drape Kelly-Plus with Measurette,* a modified under-the-buttock drape, was used at the Good Samaritan Hospital, Vincennes, Indiana, to measure the blood loss at the time of delivery in 156 patients from Jan. 1, 1979, to Dec. 31, 1979.

Participating in the study were six family practitioners and one board-certified obstetrician-gynecologist.

Although the drape used in this study allowed some amniotic fluid to spill into the measuring pouch, an accurate determination of blood loss could be assessed because the

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TABLE 1
Characteristics of Patients Studied

	RANGE	AVERAGE
Gravida	1 - 7	2.08
Para	1 - 5	1.88
Abortus	0 - 2	0.18
Weeks Gestation	35 - 44	40.22
Length of Labor (hrs.)	2 - 36	10.24
Blood Loss (ml)	50 - 1000	237.6
Pre-Delivery Hemoglobin	8.7 - 15.7	12.91
Post-Del. Hemoglobin	7.4 - 16.7	12.53
Birth Weight	5#12 - 10#10 oz.	7.12
Episiotomy	Right Mediolateral	35%
	Midline	30%
	Left Mediolateral	30%

TABLE 2
Characteristics of Physicians Studied

PHYSICIAN	# CASES	AV. MEASURED BLOOD LOSS (ml)	%PPH
A	33	207.27	6.06
B	47	253.08	8.5
C	37	210.94	8.1
D	13	307.69	23.
E	9	394.44	22.2
F	11	197.72	9.
G	6	145.0	0.

* Fazio Laboratories, Inc., Assonet, Mass.

From the Department of Obstetrics, Good Samaritan Hospital, 520 S. Seventh St., Vincennes, Ind. 47591.



At left is drape with Measurette partially concealed. Funnel-effect of drape prevents spillage onto floor. At right, Measurette containing blood is pulled down.

amniotic fluid surfaced in the pouch and the blood could be delineated at the bottom of the pouch. An improved model of this drape keeps most of the amniotic fluid out of the measuring pouch and gives a more accurate determination of blood loss.

The drape is placed under the patient's buttocks in the standard fashion, allowing any blood to simply fall onto the upper drape and then spill by gravity into the measuring pouch, which is attached to the drape and hangs in the dependent position. Measured blood loss was recorded by the doctor and verified by the delivery room nurse.

Results

The average measured blood loss was 237.6ml (*Table 1*). The anesthesia was local and Penthrane Whistle in all cases. Most women had an episiotomy, and forceps

were not used in any case. Sixty patients delivered babies over 8 lbs. and with an average measured blood loss of 287 ml. Eighteen patients delivered babies over 9 lbs. with an average measured blood loss of 286 ml.

The physicians involved in this study are lettered A through G. Physician G had six cases with no post partum hemorrhage and physician A, the eldest general practitioner, had the second lowest percentage of post partum hemorrhage. The least experienced practitioners had the highest post partum hemorrhage percentage and also the greatest average measured blood loss at the time of delivery (*Table 2*). The post partum hemorrhage rate for all the patients was 9.6%.

Discussion

Post partum hemorrhage is the

most common cause of serious blood loss in obstetrics. As a direct factor in maternal mortality, it is the cause of about one-quarter of the deaths from obstetric hemorrhage in the group that includes post partum hemorrhage, low implanted placenta (placenta previa), placental abruption, ectopic pregnancy, hemorrhage from abortion, and rupture of the uterus.¹ Post partum hemorrhage remains high in all maternal mortality reports.² Studies confirm that estimated blood loss is frequently about one-half of the actual blood loss.

For the mother, the third stage is the most dangerous part of labor because abnormalities of separation and expulsion of the placenta may be accompanied by profuse bleeding. At least nine of 57 maternal deaths in Michigan were caused by post partum hemorrhage. All nine deaths were attributed by the evalu-

ation committee to the fact that the attending physician failed to recognize that blood loss was excessive and did nothing to find the cause and to correct it until the patient was in irreversible shock.

The total mortality from hemorrhage is not always obvious because excessive bleeding may have caused death by reducing the patient's ability to cope with other complications such as infection.³

Blood loss of 500 ml is not necessarily an abnormal event for vaginal delivery, but an estimated blood loss in excess of 500 ml should call attention to the mothers who are bleeding excessively and warn the physician that dangerous hemorrhage may occur.¹

Although most women have extra blood volume at the time of delivery, not all women are hyper-

volemic, e.g., the patient with pre-eclampsia-eclampsia and others. Excellent papers are in the literature regarding blood volume changes in pregnancy.^{4,5} These intricate studies tell us more precisely the amount of blood lost at the time of delivery and cesarean section but are not helpful in routine obstetrical practice. The American College of Obstetricians and Gynecologists recommends measuring blood loss.

Summary

In this series of 156 cases, the measured blood loss at delivery was useful in the management of the obstetrical patients and in serving as an audit of the physician's performance. I suggest this same information would be helpful to the staff of teaching hospitals to audit

the performance at delivery of interns and residents, thus correcting any mis-management early in their training. Knowledge of previous or existing post partum hemorrhage should help attending physicians to further reduce maternal mortality from hemorrhage.

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CME QUIZ

Acute Ingestion of Poison . . .

CONTINUED FROM PAGE 23-27

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. The least important aspect of treatment of an acute ingestion is:
 - a. Identification of product
 - b. Removal of product from stomach
 - c. Identification of an antidote
 - d. Symptomatic and supportive care
2. Emesis is contra-indicated in ingestion of all of the below except:
 - a. Ferrous sulfate
 - b. Petroleum Distillates
 - c. A stuporous or comatose patient
 - d. Lye
3. The emetic of choice is:
 - a. Apomorphine
 - b. Ipecac
 - c. A concentrated salt solution
 - d. Activated charcoal
4. In a patient presenting with impaired sensorium, slowed respirations and pinpoint pupils, one must consider the ingestion of:
 - a. Demerol
 - b. Phenobarbital
 - c. Compazine
 - d. Amphetamines
5. A patient presenting with an oculogyric crisis, opisthotonos and ataxia most likely has ingested:
 - a. Aspirin
 - b. Compazine
 - c. Atropine
 - d. Acetaminophen
6. In a patient presenting with hyperpnea, fever and vomiting, one must consider the ingestion of:
 - a. Tricyclic anti-depressants
 - b. Phenothiazines
 - c. Acetaminophen
 - d. Aspirin
7. Narcan is an effective antagonist to all of the below except:
 - a. Codeine
 - b. Darvon
 - c. Phenobarbital
 - d. Lomotil

Following are the answers to the CME quiz that appeared in the December 1980 issue of THE JOURNAL: "Acute Myocardial Infarction: Electrocardiographic Vagaries," by W. Daniel Doty, M.D., and Charles Fisch, M.D.

- | | |
|------|-------|
| 1. d | 6. d |
| 2. b | 7. d |
| 3. d | 8. b |
| 4. a | 9. b |
| 5. c | 10. d |

CONTINUED ON PAGE 49

December CME Quiz Answers

Answer sheet for Quiz: (Ingestion of Poison . . .)

- | | |
|------------|-------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for credit for this month's quiz, send your completed, signed application before Feb. 10, 1981, to the address appearing at the top of this page.



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RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

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PUBLIC HEALTH NOTES

I welcome this opportunity to come to you each month through the pages of our professional journal. With the help of the editorial staff, I hope to use this column to share with you information about some of the state's health problems which are amenable to correction/alteration through organized community action. If community solutions are called for, such programs will succeed only with your interest and support.

Sharing, as we do, the awesome responsibility for the health and well-being of more than 5.4 million citizens, it is imperative today as never before that free and open communication channels be maintained between the members of the Indiana State Medical Association and the official state health agency.

I am especially pleased to initiate this column in January of 1981 as the Indiana State Board of Health begins its 100th year and the "State Medical Society" begins its 132nd year.

Many of you are aware, I'm sure, that it was through the persistent efforts of charter members of the Medical Society that the Indiana State Board of Health was created.

In 1849, the year of its own birth, the State Medical Society asked the Legislature to provide by law for the registration of vital events and adopted its own plan to report epidemics throughout the state. In 1875, a committee of five was appointed by the State Medical Society to study problems related to the establishment of a state board of health.

That very year, 1875, the State Medical Society committee drafted a bill for the establishment of a state board of health, submitted it to the legislature and awaited its passage. It failed.

Two years later, a similar bill was

introduced and passed in the Senate; subsequently, House members passed the bill, with amendments, and thereafter, the Senate failed to concur in the amendments.

In 1878, still doggedly pressing for action, members of the State Medical Society expanded their committee, renamed it the Indiana State Health Commission and added several laymen to it. Under the

ing on the part of pioneer physicians.

As the years have passed, there have been many changes in the program of a public health agency. At its inception, the agency was a "collector of records and information;" as it grew, it was given the responsibility of assuring the quality of school and community health and sanitary standards, providing labo-

State Board of Health Begins Its 100th Year

auspices of the Indiana State Health Commission (forerunner of what was later to become an official state health agency), district health commissions were organized and charged with the task of collecting sanitary and vital statistics. Such local "commissions" were composed of district chairmen, with a member of each county medical society from the counties included in that specific commission—all were physicians.

Ostensibly, for the purpose of providing for a registration of births, deaths and marriages, the 1881 General Assembly passed enabling legislation with an initial public health budget of \$5,000 and which stated, "The State Board of Health shall have the general supervision of the interests of the health and life of the citizens of the State . . ."

Throughout the current year, the Indiana State Board of Health will be commemorating various events which have occurred in its 100-year history, but none will be more memorable or meaningful than those described in the preceding paragraphs which created the public health agency in its embryonic form—the result of visionary think-

ratory services and later becoming deeply involved in dealing with environmental matters which come to bear on the health of people.

Today, the agency is a professional organization, manned by staff which must meet specific qualifications of education and experience in order to serve the people of Indiana. The task of protecting the public health has, since the beginning, been shared by members of the medical (and allied) professions with members of the public health profession.

Informing the citizenry of its responsibility with respect to achieving a state of good health has been a joint effort on the part of physicians and the public health sector in the firm belief that an informed citizenry is the best qualified expert to deal with its health on an individual as well as a community-wide basis.

We sincerely hope that each of you will join with us in the celebration of the Centennial year, just as you have shared with us in the effort to promote and protect the health of the people of Indiana over the years from 1881 to the present. Together, we *can* make a difference in the quality of life for all Hoosiers.

CANCER CORNER

EVERY PHYSICIAN'S OFFICE—
A CANCER DETECTION CENTER

ACS Professional Education Publications

1) *Cancer Pain: Psychological Management Using Hypnosis* by Joseph Barber, Ph.D. and Jean Gitelson. The pamphlet outlines principal advantages and six hypnotic strategies.

Summary: In the treatment of cancer, particularly when pain is a serious symptom, psychological support of a patient is important and can, in fact, facilitate ongoing oncologic treatment. Hypnosis represents a psychological technique of great potency for reducing pain, increasing patients' life-enhancing attitudes, and helping patients deal with death and separation.

Ultimately, the value of hypnosis lies in enabling an individual to potentiate inner capacities for creating psychological quiescence and physical comfort. For a suffering cancer patient, relief that comes from within can provide a much-needed experience of personal efficacy and strength.

2) *Guidelines for the Cancer-Related Checkup: Recommendations and Rationale*. This study was conducted for the American Cancer Society by David Eddy, M.D., Associate Professor of Engineering-Economic Systems; Associate Professor of Family, Community and Preventive Medicine; and Director of the Program for Analysis of Clinical Policies, Stanford University.

Many physicians have become confused by the new proposed guidelines. This 45-page reprint from *CA. Cancer Journal for Clinicians* describes in detail design issues, recommendations for the specific sites (lung, colon and rectum, cervix and breast), the evaluation of early detection tests and procedures, and experimental biases.

The new recommendations reflect two very important findings of this study. First, after an extensive review of the available information,

the Society finds that the early detection of cancer is a very important health promotion activity. Early detection profiles a very effective way to reduce the morbidity and mortality of several cancers, and the recommended protocol represents an important way people can protect their health. The second finding is equally positive; compared to the previous recommendations, the new recommendations provide essentially the same benefits at greatly reduced risk, cost and inconvenience. In fact, by indicating the most effective ways to use the available resources, these recommendations should actually increase the amount of health benefit delivered to the American people.

3) *American Cancer Society 1981 Cancer Facts & Figures*. This valuable compendium of national and state statistics by site additionally covers trends in diagnosis and treatment, up to date summaries of new information by site, and selected topics such as cancer and the environment and current major research programs.

4) *Carcinogens in the Workplace* by David Schottenfeld, M.D. and Joanne F. Haas, M.D. This pamphlet covers principles of non-human testing for chemical carcinogenicity, workplace exposure to known or suspected carcinogens, and current concepts of prevention and control of occupational cancers.

5) *A Factbook for the Medical and Related Professionals*. This pamphlet describes the organizational, financial and major programs of the society.

6) *Home Oncology Medical Extension: A New Home Treatment Program*. Vincent Vinciguerra, M.D., et al from the North Shore University Hospital, Manhasset, N.Y., describes patient eligibility and characteristics, the medical team, and services provided.

7) *Cancer Statistics, 1980* by Law-

rence Garfinkel, M.A., Cyril E. Poindexter, B.A. and Edwin Silverberg, B.S. This summary pamphlet outlines and graphs estimated incidence and mortality, cancer around the world, five-year survival rates for major sites, and cancer in black Americans.

8) *An Approach to the Control of Carcinoma of the Endometrium* by Saul Gusberg, M.D., D.Sc. Covers adenomatous hyperplasia and carcinoma in-situ, technique of early diagnosis, menopause and the high risk patient, and hormonal relations.

9) *Ovarian Cancer* by Hugh R.K. Barber, M.D. covers incidence and mortality, early detection and prevention, diagnosis, classification and staging, management, and ovarian cancer in children.

10) *Aging and Cancer Management: Part One: Clinical Observations* by Bruce H. Peterson, M.D. and B.J. Kennedy, M.D. *Part Two: Research Perspectives* by Robert N. Butler, M.D. and Barbara Gastel, M.D., M.P.H.

11) *Understanding the Cancer Patient* by Jimmie Holland, M.D., Chief, Psychiatric Service, Memorial Sloan-Kettering Cancer Center, New York, N.Y. Deals with informing the patient of a cancer diagnosis, and emotional management of the cancer patient.

12) *Statistical and Epidemiological Information on Gynecologic Cancer* by Edwin Silverberg, B.S. 56 pages.

13) *Oncologia Clinica, para Estudiantes de Medicina y Medicos. Un Enfoque terapeutico multidisciplinario*. Spanish translation of the 338-page ACS Clinical Oncology Text for Physicians and Medical Students.

14) *The American Cancer Society Professional Education Materials Catalog*. A comprehensive catalog of up-to-date society professional educational tools—films, audio cassettes, slide sets, pamphlets, exhibits, displays and posters.

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FUTURE FILE

MacKenzie Seminar in March

The MacKenzie Seminar will be held at 1 p.m. March 19 at St. Mary's Medical Center in Evansville on the subject of the female genitourinary tract. Anatomy, physiology, urethroscopy, urinary tract infections and stress incontinence will be covered by visiting specialists.

The seminar is approved for four hours of Category 1 credit, four prescribed hours by the American Academy of Family Practice, and four Cognates Formal Learning Credits by the American College of Obstetricians and Gynecologists.

Milwaukee Heart Symposium

"Coronary Heart Disease 1981: The Medical-Surgical Approach to Evaluation and Treatment" is the theme of a symposium sponsored by St. Luke's Hospital, Milwaukee, April 9-11.

Fee for the conference, to be conducted at the Hyatt Regency, Milwaukee, is \$250, which includes all registration materials, lunches, refreshment breaks and a ticket to the "gala museum party." Early registration is recommended.

Write to Mrs. Dorothy Black, St. Luke's Hospital, 2900 Oklahoma Ave., Milwaukee 53215.

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4-Day New Orleans Meeting

The American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) will hold its Fifth Clinical Congress at the New Orleans Hilton Feb. 2-5. Those attending will be presented with the latest advances in clinical nutrition.

For full information, write the Society at 1025 Vermont Ave., N.W., Suite 810, Washington, D.C. 20005.

Head, Facial Pain Seminar

"Medical and Dental Aspect of Head and Facial Pain" is the subject of a seminar sponsored by the Indiana Academy of Family Physicians and the Indiana Academy of General Dentistry on Feb. 28 at the Airport Hilton Hotel, Indianapolis.

For more information, contact the IAFP at 4847 S. High School Road, Indianapolis 46241.

Breast Cancer Conference

The 19th National Conference on Breast Cancer will be conducted March 9-13 at the Hotel Del Coronado in San Diego. The registration is \$275; for residents, it is \$200.

For registration and hotel forms write American College of Radiology, Breast Cancer Conference, 6900 Wisconsin Ave., Chevy Chase, Md. 20015.

Evansville Lymphomas Seminar

"Treatment of Lymphomas" will be discussed by a panel of experts at a seminar on Feb. 19 at St. Mary's Medical Center, Evansville.

The program will start at 1 p.m. and is approved for four hours credit in Category 1 and four prescribed hours by the American Academy of Family Practice.

Hyperbaric Oxygen Conference

The Sixth Annual Conference on Clinical Application of Hyperbaric Oxygen will meet June 10-12 at the Memorial Hospital Medical Center of Long Beach—University of California, Irvine Center for Health Education.

For details write to G. B. Hart, M.D., Baromedical Department, Memorial Hospital Medical Center, 2801 Atlantic Ave., Long Beach, Calif. 90801.

Pediatric Dermatology Seminar

The 8th Annual Pediatric Dermatology Seminar will convene at the Eden Roc Hotel, Miami Beach, Fla., Feb. 26-March 1, 1981. It will be followed by a 12-day post-seminar tour to Tahiti and New Zealand, with an optional extension to Australia. Write Guinter Kahn, M.D., 16800 N.W. 2nd Ave., Miami, Fla. 33169.

Reye's Syndrome Meeting

A consensus development conference on "The Diagnosis and Treatment of Reye's Syndrome" will be held at the National Institutes of Health March 2-4.

For information, contact Yvonne P. Lewis, Prospects Associates, 11325 Seven Locks Road, Suite 221, Potomac, Md. 20854. Tel: (301) 983-0535.

Nutrition and Cancer Update

"Nutrition and Cancer Update" is the subject of a CME program to be held March 27-28 at the University of Louisville School of Medicine.

Discussions will cover the possible influences of the neoplastic disease on the nutritional status of cancer patients; the role of nutritional support in the management of cancer patients and ways of providing the most efficient nutritional support. A distinguished faculty from many medical centers will participate. The AMA and the AAFP will give 14½ credit hours.

For more information, write to Gerald D. Swim, Assistant Dean, Louisville 40292.

Emergency Medicine Ski Confab

The Second Annual Mammoth Mountain Emergency Medicine Ski Conference is scheduled for March 8-14 at Mammoth Lakes, Calif. Approved for 25 hours of Category 1 credit by the AMA and the ACEP. The fee is \$290 for physicians and \$165 for nurses.

Write to Medical Conferences, Inc., P.O. Box 52-B, Newport Beach, Calif. 92662.

Cytopathology Course in Baltimore

A two-week postgraduate course in cytopathology will be conducted March 22 through April 3, at The Johns Hopkins University School of Medicine and The Johns Hopkins Hospital in Baltimore.

The course, designed for pathologists who are certified (or qualified) by the American Board of Pathology (PA), or their international equivalents, is accredited for 125 hours in AMA Category 1.

It will provide an intensive refresher in all aspects of clinical cytopathology. Self-instructional material will be available to augment at individual pace. A loan set of slides with text will be sent to each participant for home-study during February and March.

Application deadline is Jan. 28. For details, write to John K. Frost, M.D., 610 Pathology Bldg., The Johns Hopkins Hospital, Baltimore, Md. 21205.

Harvard Offers Executive Program

"Managing Multi-Institutional Collaboration" is the subject of an intensive one-week program scheduled for March 15 to 21 at the Harvard University School of Public Health. Full particulars are available by calling Emily T. Maughan at (617) 732-1142.

Alcoholism Symposium Slated

The second annual "Advances in Alcoholism" symposium will be conducted March 6-7 at the Registry Hotel in Newport Beach, Calif. It is sponsored by The Raleigh Hills Foundation and the American Medical Society on Alcoholism.

The fee, which includes two luncheons, is \$150 for physicians and \$100 for non-physician professionals. Seventeen hours of CME credit will be awarded.

Call toll free 800-854-3020, or write the Foundation at 17861 Cartwright Road, Irvine, Calif. 92714.

3-Day Milwaukee Symposium

"Coronary Heart Disease—1981" is the title of a symposium to be held in Milwaukee April 9, 10, and 11. A faculty of 32 specialists will present recent data on etiology, diagnosis and medical-surgical management of coronary disease.

The fee is \$250, which includes all conference materials, three lunches and a special evening of refreshments and entertainment.

For details, write to Ms. Dorothy Black, St. Luke's Hospital, 2900 W. Oklahoma Ave., Milwaukee, Wisc. 53215.

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AUXILIARY REPORT

Dorothy (Mrs. Herbert A.) Schiller
President, ISMA Auxiliary



RUTH GATTMAN Auxiliary Coordinator Voluntary Effort

Do you know what V.E. means? Is your county absolutely covered with yellow-and-black brochures and displays? If you cannot answer yes to both of these questions, you're missing the greatest public information program ever to be presented in Indiana (and the nation too, I might add).

Yes, the Voluntary Effort (V.E.) and the associated yellow-and-black brochures, "You Can Lower Your Health Care Costs . . . Here's How" have taken the ISMA Auxiliary by storm. From one end of Indiana to the other auxiliaries have been instrumental in making this program a success.

Since its kick-off luncheon in September, Vanderburgh S.W. and Owen-Monroe county auxiliaries have assisted in setting up their own county V.E. kick-off events. Other auxiliaries have distributed displays and brochures to physicians' offices, at health and county fairs, appeared on T.V. for the Voluntary Effort, formed speakers bureaus, arranged for distribution of the brochures to schools, and have done whatever else was necessary to make the V.E. work best in their community.

Most auxiliary county V.E. coordinators are members of the local V.E. task force and are working closely with local hospitals, chambers of commerce, businesses, industries, medical societies and the local press to help spread the word about the V.E. Their goal is to inform the public about what each citizen can do to lower his health care costs. For many auxiliaries this

is the first time such a diverse group has met to talk about mutual problems and to assist one another in solving them. It's a heady assignment, but one that has created much good will for all those involved.

November 19, 1980, the Indiana Voluntary Effort Task Force, in cooperation with the State Chamber of Commerce, sponsored a workshop for business and industry at the Indiana Convention Center and provided the opportunity for this segment of the health care system to discuss problems unique to business and industry. This excellent workshop featured speakers such as Paul Earle, director, National Voluntary Effort, Chicago; Eldon Campbell, vice-president, Indiana National Bank, Indianapolis; and Dr. George Lukemeyer, executive associate dean, I.U. School of Medicine, Indianapolis.

In his talk on cost saving ideas for business/industry, Ronald A. Hurst, manager, Health Care Plan, Caterpillar Tractor, Peoria, Illinois, said "Health care can be dangerous to your health." He urged industry to educate employees to improve their lifestyle, thus leading to cost containment. He said, "A greater amount of money must be spent on education, and this is an area in which industry should take the lead."

The 30 counties attending were represented by physicians, hospitals, chambers of commerce, education, business, industry, insurers and the auxiliary. This workshop provided the vehicle for good dialogue between all who attended, and achieved its goal of presenting practical ideas and methods to help

business/industry tighten the belt on health care costs.

Future plans for the V.E. include implementing our theme of the month, with a suggested related emphasis for the auxiliary. Governor Otis R. Bowen is serving as spokesman and was featured on T.V. and radio spots offering the V.E. brochure. Dr. Lowell H. Steen, Munster, has provided an added dimension to the V.E. through his dual role as chairman, AMA Board of Trustees, and national V.E. chairman. We hope the V.E. logo will become a focal point for health information in every county in Indiana.

Using the AMA Auxiliary's Shape Up For Life Program as the basis for promoting healthier lifestyles, auxiliaries are being encouraged to contact "lifestyle" editors of their local newspapers and to provide suggestions for healthy, well-balanced meals and practical tips on exercising. In cooperation with the Parks Department and/or the YMCA-YWCA, walking can be promoted as a safe, effective form of family exercise. Assisting hospitals with Stop Smoking and Drug and Alcohol Abuse Clinics is another way to promote healthy living. Providing the V.E. "health tips" to business publications is another service the auxiliary can provide.

If you would like more information on the Voluntary Effort, contact me at 1617 Rainbow Bend Blvd., Elkhart 46514, 219-294-2935, or contact the Public Relations Dept., 1-800-382-1721 at the ISMA. Your county will benefit from your participation in the V.E. and you will, too.

Meet Your ISMA Staff



Ronald L. Dyer
Attorney

Richard B. King II
Attorney

Ron Dyer is one of two ISMA attorneys. Ron, 36, joined ISMA in 1978 after having been engaged in a private law practice since 1972, when he was graduated from the Indiana University School of Law. He is a former Marion County deputy prosecutor.

Besides serving as general legal counsel for ISMA, Ron provides staff support for HSAs, PSROs, the Commission on Constitution and By-laws, the Medico-Legal Committee, state and federal government regulations, and the Medical Providers' Advisory Committee to the Department of Public Welfare.

Ron is a member of the American Bar Association, the Indiana State Bar Association, the Indianapolis Bar Association and the American Health Lawyers Association.

He is not a desk-bound person. Although he's quite comfortable with his face buried in a law book, he's just as much at home as a scuba instructor or airplane pilot. He likes to water and snow ski, play tennis and racquetball, and go boating and fishing. He's even into motorcycling—he owns a 125cc Yamaha Sodbuster.

Ron and his wife Taunya live in Indianapolis with their two daughters, Stacy, 7, and Christy, 4.

Richard (Rick) King, 31, joined ISMA in December 1976 as the Association's legislative analyst. Although he was the first attorney hired, he and Ron Dyer now share responsibilities as legal counselors for ISMA.

Rick's special responsibilities include serving as ISMA's director of federal and state government relations and staffing the Commission on Legislation, as well as the Negotiations Committee. He serves as advisor to IMPAC and is a member of the Board of Directors, Indiana Physicians Investment Co. and Indiana Physicians Life Insurance Co.

He formerly was an attorney with the Marion County Prosecutor's Office. Rick, a graduate of the Indiana University School of Law, is a member of the Indiana State Bar Association, the Indianapolis Bar Association and the Law and Medical Association. He also is an adjunct professor at the I.U. School of Medicine.

Rick, a native of Muncie, is a captain in the Indiana Army National Guard's Judge Advocate General Corps, but that isn't the only uniform he ever wears. He has a variety of less formal wear for playing racketball and skiing. Not to be outdone by ISMA pilots Mike Huntley and Ron Dyer, he too has earned a private pilot's license.

Rick and his wife, the former Miss Toni Peabody, who is a postgraduate student at Indiana University, have a baby son, Richard III.

BOOK REVIEWS

Basic Neuroscience

Adel K. Afifi, M.D. and Ronald A. Bergman, Ph.D. Copyright 1980, Urban & Schwarzenberg, Baltimore/Munich. 518 pages, \$24.50.

This textbook is well written, well illustrated, factual, and complete in covering the basic aspects of neuroscience. *Basic Neuroscience* is written for the physician whose level of training is that of the first-year resident. The book also would be of practical value to the general physician having a specific interest in neurology and its basic sciences. This is a clear, easy-to-read book. It does not cover any area in detail, but does give an excellent brief overview of the entire field.

CHARLES A. BONSETT, M.D.
Indianapolis
Neurology

Eduard Pernkopf Atlas of Topographical and Applied Human Anatomy: Vol. II, Thorax, Abdomen and Extremities

2nd Rev. Edition, edited by Helmut Ferner, M.D. Copyright 1980, Urban & Schwarzenberg, Baltimore. 418 pages, 411 illustrations (322 in color), \$98.

This edition of Pernkopf proves that such classics need not decline into ancient anatomy monuments. In disinterring this once lost masterpiece from the library stacks, the editors complement the original drawings with arteriograms and other radiographs. To improve readability, they significantly decrease the number of reference lines that label specific structures. Wherever possible, horizontal plates are re-oriented vertically, and the two-page illustrations whose images were previously marred by the center crease are now displayed in single page format.

The quality of illustration remains superb. First prize, for example, goes to the plates that depict—in eight different colors—pulmonary segmental anatomy and its bronchovascular infrastructure. The nomenclature used (the *Nomina anatomica* of Oxford, Paris, New York and Wiesbaden) aims at the basic rather than the applied scientist. “Ramus circumflexus of A. coronaria dextra,” for example, is a term that medical students should forget as soon as they pass their anatomy exams. In clinical parlance, the circumflex is not one of the standard names for a right coronary artery branch.

Another flaw, the practice of reducing anatomical complexity in such a magnificent and idealized way, also deserves comment. Much of this atlas’ factual material (like menus, dates, and names in a detective story) is there to authenticate what is really fiction. In ignoring anatomical variations, this conceptual simpli-

fication process creates a series of big white lies about human anatomy. In reality, for example, the coronary arteries are as variable as finger prints; to come away thinking that the heart has three arteries has doomed us to classify patients as having single, double, or triple vessel disease in a time when more precise categorization is necessary.

These carping comments could apply to all such guide books. It should not discourage medical students and librarians from buying Pernkopf’s atlas in particular. Like Beethoven’s music, it retains the classical sense of the resolution of large scale dissonance (anatomical variability) by the re-establishment of a symmetrical equilibrium. Pedagogy in the service of learning is not all bad, and this atlas engenders such esthetic pleasure that it almost makes studying anatomy enjoyable!

ALAN T. MARTY, M.D.
Evansville
Cardiovascular Surgery

Physical Activity and Aging

Roy J. Shephard, M.D., Professor of Applied Physiology, University of Toronto. Copyright 1978, Year Book Medical Publishers, Chicago. 353 pages.

This book is crammed with data on the physiology of aging and the effect of exercise on a great variety of metabolic phenomena. Any serious researcher on aging, regardless of his particular interest, will find this a gold mine of factual information. Most experienced practitioners of medicine will find confirmation of conclusions which they have already made from their own observations. If a person past 50 years of age can be induced to take *regularly* the exercise of which preliminary testing finds him capable:

1. He will probably live a little longer than his more indolent peers,
2. Being health conscious he will be more likely to stick to a reasonable diet, use less alcohol and cigarettes and have better sleep at night,
3. He will “feel” better and have greater physical capability because of improved oxygen transport,
4. If his job requires fairly strenuous physical activity he usually will be able to carry on longer with it than his non-exercising fellows,
5. His total costs for medical care are likely to be less,
6. He is likely to be more gregarious than he would be otherwise and have more self respect and life satisfaction.

The lesson is clear—Keep Moving!

PAUL S. RHOADS, M.D.
Richmond
Internal Medicine

Review of Medical Pharmacology

7th Edition. Frederick H. Meyers, M.D., Ernest Jawetz, M.D., Alan Goldfien, M.D., School of Medicine, University of California. Copyright 1980, Lange Medical Publications, Los Altos, Calif. 747 pages, \$12.50.

This book follows the authors' previous practice of emphasizing the facets of pharmacology serving the clinical needs of students and practitioners in medicine and the allied professions. Theoretical and research aspects are not neglected but are kept to a minimum. A laudable aim of the book is to encourage skepticism toward new drug claims. As is customary with Lange publications, this text represents a revision after only two years, virtually assuring that its material will be up to date.

The text's 700-plus pages cover medical pharmacology comprehensively, with sections on general information, autonomic and cardiovascular drugs, CNS drugs, systemic drugs, endocrine drugs, drugs used for treating nutritional and metabolic problems, chemotherapeutic agents, and toxicology. The writing style is clear and forthright. Illustrations are employed judiciously.

The end papers are put to excellent use—one with schedules of controlled drugs, the other with nomograms for determining body surface area.

This 7th edition of an internationally published handbook is enthusiastically recommended for its target audience.

W. D. SNIVELY, JR., M.D.
Evansville
Internal Medicine

Medicine: An Illustrated History

Albert S. Lyons, M.D., and R. Joseph Petrucelli II, M.D. Copyright 1978, Harry N. Abrams, Inc., New York, 616 pages.

Writers of medical history have been especially prone to present a progression of biographical sketches in chronological order and call that history. This has been pejoratively termed "iatrohistory."¹ The authors of this massive, folio-sized volume have avoided this pitfall and have achieved what Fielding Garrison claimed for his "History of Medicine" (republished in 1929),² that is, to write along lines such as "... the graphic, the biographic, the bibliographic and the cultural."

It is a big "coffee table book" with an imposing table of contents from "Early Types of Medicine" (that is Prehistoric and Primitive) through "Ancient Civilizations" (including India and China) to "Greece and Rome." Roughly the second half of the volume deals with Western medicine from medieval to modern times. A final section covers "organ systems" and re-

lated specialties such as veterinary medicine. Altogether it seems very comprehensive. There are more than a thousand illustrations, of which 266 plates are in full color.

The quality of the writing seems of a high order and the authors are good at conveying the basic truth of a situation as, in the introduction, Dr. Lyons says: "To which erroneous doctrines do we in the Twentieth Century still cling? If we knew with certainty that they were wrong, we would discard them. Instead we search and wait and hope."

That says it all, doesn't it? The book is worth its fancy price. After all, medical history is but a form of continuing education.

¹George Rosen, quoted page 9 of present book.

²Garrison, Fielding, *History of Medicine*, W. B. Saunders & Co., Copyright 1929, Reprinted 1966, p. 10.

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NEWS NOTES

French Surgeon to Inaugurate Finneran Seminar Series

Professor Maurice Mercadier, one of the most prominent general surgeons in France, has accepted an invitation to inaugurate the first program of a series of seminars under the auspices of the Finneran Surgical Endowment Fund.

The several sessions of the seminar will meet on April 20 and 21, some at St. Vincent Hospital and some at the Indiana University Medical Center Hospitals. Details of the program will be announced later.

The Finneran Surgical Endowment Fund is a fund

within the St. Vincent Foundation which is being formed by contributions to memorialize the life and high accomplishments of Joseph C. Finneran, M.D. The fund is now in its developing phase and welcomes contributions from the recipients of Dr. Finneran's kindness and friendship.

Use of Aspartame Spreading

Searle has received approval to market the new sweetener, aspartame, a new low-calorie sweetener, in Brazil and the Philippines. Earlier last year the product was introduced into France, Belgium and Luxembourg, where it received rapid acceptance.

VA Given Broad Authority to Expand Vocational Help for Disabled Vets

IMPROVEMENTS in the way the Veterans Administration helps disabled veterans are the "most important since the program was established in 1943," according to Max Cleland, administrator of Veterans Affairs.

Cleland was referring to recent legislation that gave his agency broad new authority to improve vocational rehabilitation for disabled veterans. The law also increased GI Bill education allowances.

The Congressional action, approved by the President Oct. 17, 1980, permits VA to go beyond its traditional role of preparing disabled veterans for the job market to helping place them in jobs suited to their individual disabilities.

For those veterans disabled so severely that employment is unfeasible, VA now can provide "independent living" counseling and support. A pilot program to be launched next fiscal year will offer special help for up to 500 severely disabled veterans per year with the goal of helping them live in the community with a reduced level of help from others, or independently.

The mandate also strengthened the Labor Department's Disabled Veteran Outreach Program designed to help veterans find work. A nationwide network of veterans

who are specialists in employment counseling, now working at state and local employment offices, will be expanded to 2,000, and 25% of the new specialists in each state will be located at VA facilities.

Other program modifications made possible by the "Veterans Rehabilitation and Education Amendments of 1980" include:

- Veterans eligible for both vocational rehabilitation and the GI Bill may now receive the higher payments of the GI Bill while at the same time receiving many of the services of the vocational rehabilitation program.

- Monthly allowances were increased by 17%.

- The basic eligibility period was increased from nine to 12 years after the veteran leaves service. During the period the veteran normally receives 48 months of payments and services, but extensions are permitted in both categories for veterans with serious employment handicaps.

- Veterans training in federal agencies may now receive the higher institutional training allowance rather than on-the-job rate.

- Individual written rehabilitation plans leading to jobs or independent living must be developed for each veteran by VA. The veter-

an may appeal if he does not agree with VA's plan for him.

- With certain exceptions, incarcerated veterans may receive training allowances.

- VA may now pay room and board in lieu of subsistence allowance for a veteran pursuing rehabilitation at a special facility.

- Employers may be reimbursed by VA for certain necessary added costs in developing on-the-job training programs for disabled veterans.

- VA may now conduct research and special projects related to rehabilitation, develop on-going professional training for counseling and rehabilitation personnel, and recruit an advisory committee of service-connected veterans and personnel distinguished in the general and special fields of rehabilitation.

Some 26,000 handicapped veterans currently are receiving VA vocational rehabilitation services. More than 839,000 have trained in the program. In fiscal year 1980, VA expenditures in vocational rehabilitation exceeded \$90 million.

Guidelines on these programs for VA field offices are being developed at the VA Central Office in Washington.

Here and There . . .

. . . **Dr. Russell J. Dukes** of Bloomington has been inducted as a Fellow of the American College of Chest Physicians.

. . . **Dr. S. Michael Mauer** of Minneapolis and **Dr. R. Michael Blaese** of Bethesda, Md., were presented 1980 E. Mead Johnson Awards during the 50th anniversary meeting of the American Academy of Pediatrics this fall. The awards are for outstanding research in pediatrics and consist of a certificate and \$3,000.

. . . **Dr. William F. Blaisdell** of Seymour has been designated by the FAA as an aviation medical examiner. He holds a commercial pilot's license.

. . . **Dr. Jon E. Smucker** of Goshen, **Dr. N. David Saddawi** of South Bend, **Dr. Yng-Cherng Lin** of Warsaw, **Dr. John D. Jones** of Anderson, **Dr. Marvin L. Smitherman** of Lafayette, and **Dr. Richard S. Witham** of Martinsville have become Fellows of the American College of Surgeons.

. . . **Dr. Peter R. Petrich** of Attica, a former ISMA president, was recently chosen as vice-chairman of the AMA Council on Constitution and Bylaws.

. . . **Dr. Howard C. Jackson** of Madison, former trustee of the Fourth Medical District, has been appointed to a three-year term on the Indiana Protection and Advocacy Service Commission for the Develop-

mentally Disabled. He succeeded **Dr. Patrick J. V. Corcoran** of Evansville.

. . . **Dr. Philip R. Myers** of Edwardsburg has been certified as a diplomate of the American Board of Emergency Medicine.

. . . **Dr. Harold D. Caylor**, a general surgeon at the Caylor-Nickel Clinic in Bluffton until his recent retirement, has been named recipient of the third annual Russel V. Lee Honorary Lectureship Award, presented for significant contributions to the group practice of medical care delivery in the United States.

. . . **Dr. Alvan L. Eller** of Flora and **Dr. Thomas J. Stolz** of Lafayette have been named Fellows of the American Academy of Family Physicians.

. . . **Dr. Charles R. French** of Terre Haute and **Dr. Reginald B. Stiles** of Fort Wayne have been named diplomates of the American Board of Family Practice.

. . . **Dr. Roscoe E. Miller** of Indianapolis, Distinguished Professor of Radiology at Indiana University School of Medicine, has received the 1980 Walter B. Cannon Medal for exceptionally significant contributions to gastrointestinal radiology. It was presented by the Society of Gastrointestinal Radiologists.

. . . **Dr. Eugene G. Roach** of Indianapolis has been elected to the American Cancer Society's national board of directors. He is president of the society's Indiana division.

. . . **Dr. Stephen J. Jay** and **Dr. Robert B. Stonehill** of Indianapolis have co-edited *Manual of Pulmonary Procedures*, recently released by the W. B. Saunders Company, Philadelphia. Its contributors include nine members of the I.U. School of Medicine staff.

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CME Quiz . . .

CONTINUED FROM PAGE 37

8. The extra-pyramidal symptoms of a phenothiazine overdose may be reversed with:
 - a. Narcan
 - b. Physostigmine
 - c. Benadryl
 - d. Atropine sulfate
9. The hazardous ingredients in most poisonous fruit seeds (apple, peach, cherry) is:
 - a. An anticholinergic alkaloid
 - b. A digitalis-like compound
 - c. A cyanogenic glycoside
 - d. An anti-coagulant
10. Which of the following is not a specific antidote?
 - a. Narcan
 - b. Activated charcoal
 - c. Atropine
 - d. Physostigmine

NEWS NOTES

Health Care Journal Renamed

The Columbia University College of Physicians and Surgeons has changed the name of a journal and announced an ambitious goal for it.

Values and Ethics in Health Care is the name chosen to replace *Man and Medicine: The Journal of Values and Ethics in Health Care*. Its goal is to create a forum in which scholars from many disciplines can address the "insoluble" problems besetting health care today, separate what is good, just and practical from what is not, and plan intelligently for the health professions and the public they serve.

Robert J. Weiss, M.D., dean of the Columbia University School of Public Health, is editor of the publication.

Family Practice Residency Grant

The W. K. Kellogg Foundation has made a two-year grant of \$170,370 to the Family Health Foundation to increase positions in family practice residencies and graduate medical education programs. The American Academy of Family Physicians will perform much of the project work under contract with the FHFA.

The project will start with an analysis of accredited family practice programs to determine the characteristics of successful operation. At present there are 2,536 first-year positions in 382 accredited family practice residency programs. The Academy's goal is to recruit 4,000 of U.S. medical school graduates into residency programs during the 1980s.

91% of Women Surveyed Are Unhappy With Their Body Image

SOCIETY'S obsession with beauty and slimness is distorting self-image in young women.

Dissatisfaction with body image was found in 91% of the college women surveyed in a recent study described in the November *Journal of The American Dietetic Association*. Almost 70% thought of themselves as overweight, although only 39% could be so classified by objective measurement.

One-fourth of the women were underweight, but fewer than 10% saw themselves that way. And 46% wished to be underweight.

In all categories—underweight, slightly underweight, normal, slightly overweight, and overweight—63% of the women overestimated their size. They perceived themselves to be one category higher than objective assessment indicated.

"This tendency can be interpreted as mild body image disturbance," according to the authors, Toby M. Miller and Judith G. Coffman, registered dietitians, and Ruth A. Linke, Ph.D., of the Department of Home Economics and Nutrition, New York University.

The sample in this study consisted of 22 men and 46 women undergraduate students between 18 and 23 years of age, who visited New York University's Health Service during a two-week period. They represented an ethnic and racial mix. The students were asked to respond to an anonymous questionnaire designed to gather information on attitudes about weight, satisfaction with certain body dimensions, and eating practices related to weight control.

Results showed that 54% of the students were dissatisfied with their weight. Desiring to be in a lower weight category were: 58% of the normal women, 100% of the slightly overweight and overweight women, 100% of the overweight men, and 50% of the slightly overweight men.

An increasing degree of weight consciousness was noted among men, but most of them were relatively realistic in their perceptions of their weight category. Surprisingly, though, about one-fifth of the men reported thinking of themselves as slightly underweight, although actually none was.

Most of the men were satisfied with the size of their thighs and their hip and waist circumferences. However, the majority wanted larger arms—which could be interpreted as a desire for larger arm muscles. Most of the women wished for smaller thighs, hips, and waists; but most were satisfied with their arm size.

At the time of the survey, 56% of the students said they were modifying their diet. Only 35% of the respondents were classified objectively as slightly overweight, but 61% of the women and 32% of the men were attempting to lose weight.

Two-thirds of the women who were dissatisfied with their body image were modifying their diet to lose weight. Various weight-reducing methods were described in response to the questionnaire. Thirty-seven per cent of the students were eliminating carbohydrate sources—pointing up the prevailing misconception that bread and other starches are "fattening."

The authors suggest that dietary counseling and weight control programs should emphasize realistic concepts of body image.

Neighboring States Announce Annual Association Meetings

Annual meetings of nearby state medical associations are scheduled as follows for 1981:

State Medical Society of Wisconsin: March 26-28.

Illinois State Medical Society: April 5-8.

Iowa Medical Society: May 2-3.

Ohio State Medical Association: May 16-20.

West Virginia State Medical Association: Aug. 20-22.

Kentucky Medical Association: Sept. 20-24.

Michigan State Medical Society: Nov. 17-19.

So, What's an H-M-O?

A recent Harris poll reported that only 20% of Americans recognize the term "HMO," according to *Medical Economics*. But of those who have joined these

prepaid plans, 75% say they plan to renew their membership because they like the low cost, one-stop comprehensive care, and 24-hour service their HMOs offer. The poll showed, however, that HMO members express misgivings about physician friendliness, helpfulness and quality of care.

Experts Find No Link Between Hyperactivity, Diet

The Nutrition Foundation recently summarized results of studies carried out over the last five years concerning the relationship of hyperactivity in children and artificial food colorings, artificial flavorings, and natural salicylates. None of the investigators found any causal connection. The Foundation concludes that the evidence is sufficient to refute claims that the mentioned substances are harmful to children.

Physician Recognition Awards

Alexander, Alan A., Lafayette
Amorini, Michael F., Columbus
Andrews, Frederick B., Columbus
Ang, Robert T., Merrillville
Armbuster, Thomas G., Fort Wayne
Asher, James W., Indianapolis
Baker, Eldon E., Delphi
Beltz, Homer F., Carmel
Berkshire, Shaffer B., Columbus
Bernard, Marvin R., Merrillville
Bloomer, Richard S., Rockville
Brandewie, Pilar R., South Bend
Brown, Robert R., Terre Haute
Cabrera, Juan C., Evansville
Carroll, Mary E., Crown Point
Cohen, Hyman L., Valparaiso
Cohen, Irving, Plainfield
Cooper, B. Trent, Roanoke
Cox, Larry L., Elberfeld
Crebo, Alan R., Kokomo
Cuff, Steve C., Fort Wayne
Daly, Joseph M., Indianapolis
Donauer, Robert M., Merrillville
Edwards, William A., Danville
Elleman, John H., Kokomo
Eskew, Philip N., Carmel
Faris, James V., Indianapolis
Feeney, Martin T., Indianapolis
Felger, Thomas A., Fort Wayne
Ferree, Mary M., Indianapolis
Feuer, Henry, Indianapolis
Fretz, Richard C., Kokomo
Fuller, Robert G., Columbus
Fulton, William H., Indianapolis
Glassley, Stephen H., Fort Wayne
Golper, Marvin N., Kokomo
Graham, James C., Fort Wayne
Greenlee, James R., Elkhart
Hall, William R., Fort Wayne
Harris, Robert L., Evansville
Hegeman, Theodore F., Indianapolis

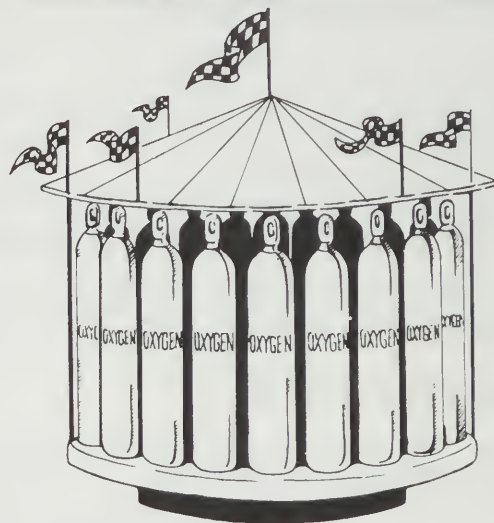
Hildebrand, John O., South Bend
Himmelsbach, William A., Elkhart
Hoog, John M., Fort Wayne
Horning, Richard R., Logansport
Hussey, Lawrence K., South Bend
Imperial, Boris S., Terre Haute
Johnston, Craig R., Indianapolis
Joyner, John E., Indianapolis
Juergens, Richard B., Fort Wayne
Kaliney, William J., South Bend
Kent, Richard N., Fort Wayne
Kettelkamp, Donald B., Indianapolis
Knieser, Martial R., Indianapolis
Kobak, Alfred J., Valparaiso
Koch, Edwin F., Muncie
Krause, Maurice D., Lafayette
Krueckeberg, Karin E., Bloomington
Krueger, James R., Evansville
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Lee, John W., Fort Wayne
Lewis, Merril B., Evansville
Lim, Young S., Evansville
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Luce, John W., Michigan City
Macri, Paul A., Mishawaka
Maus, Ronald T., Kokomo
Melchior, Jerome E., Vincennes
Mishkin, Marvin E., Elkhart
Miyamoto, Richard T., Indianapolis
Musngi, Luciano P., Pendleton
Nelson, Carl A., West Lebanon
Ng, Anastacio C., Indianapolis
Parent, John R., Fort Wayne
Paris, John M., New Albany
Patel, Narendrakumar M., Fort Wayne
Peralta, Jose, Crawfordsville
Percinel, Ahmet K., Evansville
Petry, Thomas N., Delphi
Pollack, Seymour L., New Castle
Poulos, Ward E., Indianapolis
Priddy, Marvin E., Fort Wayne

Pyle, Susan K., Union City
Reich, Clarence E., Evansville
Reynolds, Richard J., Terre Haute
Rhodes, Alfred K., Lawrenceburg
Riner, Jack K., Indianapolis
Rogers, Robert E., Indianapolis
Roller, Mac C., Franklin
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Sherman, David E., Lafayette
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Singer, Mark I., Indianapolis
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South, Dale R., Elkhart
Spence, William C., Knightstown
Spicer, Stephen C., Rensselaer
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Staley, Harry L., Bluffton
Steele, Robert J., Indianapolis
Stephens, Donald E., Indianapolis
Stilwell, Barbara M., Indianapolis
Street, Jamie S., Indianapolis
Sturgis, Donald G., Sellersburg
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Weida, Jerry M., Lafayette
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OBITUARIES

A. Wilson Smith, M.D.

Dr. Smith, 84, Columbus, died Nov. 18 at Bartholomew County Hospital, Columbus.

He was a 1921 graduate of Rush Medical College, Chicago.

Dr. Smith, a World War I veteran, served as director of Student Health Services at DePauw University, Greencastle, from 1957 until he retired in 1968. He was enrolled in ISMA's Fifty Year Club in 1971.

William G. Hibbs, M.D.

Dr. Hibbs, 87, a retired Franklin physician, died Nov. 18 at the Franklin United Methodist Home.

Dr. Hibbs, a 1920 graduate of Rush Medical College, Chicago, was a former medical director at the Indiana Masonic Home in Franklin. He was the first medical director of Rush-Presbyterian-St. Luke Medical Center in Chicago, where he served 45 years. Recognized as the first pre-medical student to be graduated from Franklin College (1915), he was a member of that school's board of trustees from 1952 to 1979 and was an honorary trustee at the time of his death.

Dr. Hibbs, certified by the American Board of Internal Medicine, was enrolled in ISMA's Fifty Year Club in 1970.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

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Cecil W. Ely, M.D.

Dr. Ely, 62, a member of the Clark County Medical Society, died Aug. 31.

Dr. Ely, a radiologist, was a 1952 graduate of the University of Louisville School of Medicine.

Ertugrul S. Ozgen, M.D.

Dr. Ozgen, 49, a Covington pathologist, died Nov. 4.

He was a native of Ankara, Turkey, and was graduated from Ankara University School of Medicine in 1956.

Dr. Ozgen was certified by the American Board of Pathology and was a member of the College of American Pathologists. He had become a member of the Fountain-Warren County Medical Society in 1979.

Richard W. Terrill, M.D.

Dr. Terrill, 73, a retired Fort Wayne ophthalmologist, died Nov. 16 at his home.

He was a 1934 graduate of Indiana University School of Medicine and was a World War II veteran.

Dr. Terrill was a member of the International College of Surgeons and the American Academy of Ophthalmology and Otolaryngology. He was certified by the American Board of Ophthalmology.

Albert M. Donato, M.D.

Dr. Donato, 67, an Indianapolis physician, died Nov. 29 at Community Hospital, Indianapolis.

He was a 1936 graduate of Indiana University School of Medicine.

Dr. Donato was medical director for Colonial Crest Nursing Homes. He was a past president of the Marion County Medical Society and was chairman of the Governor's Council on Aging and of the State Geriatric Association. He also was a member of ISMA's Commission on Medical Services, and was a member of the American Academy of Family Physicians.

Thomas A. Gehring, M.D.

Dr. Gehring, 42, a Merrillville physician, died Nov. 30 at Broadway Methodist Hospital, Merrillville.

He was a 1963 graduate of Indiana University School of Medicine and was a lifetime member of I.U.'s Alumni Association.

Dr. Gehring, a former president of the Lake County Medical Society, was a general practitioner at the Ross Clinic in Merrillville and was a member of the Methodist Hospital staff. The third-floor solarium at the hospital's Southlake Campus in Merrillville was dedicated in his honor Dec. 5. Dr. Gehring was a diplomate of the American Board of Family Practice.

COMMERCIAL ANNOUNCEMENTS

IDEAL PRACTICE LOCATION: New Haven, Indiana (a suburb of Fort Wayne). Family Practice, Peds, etc., now leasing space in beautiful new East Allen Professional Park. Contact Dr. Wm. J. Daly, 1220 Lincoln Hwy E., New Haven, Ind. 46774 for details.

GROW WITH US IN SUNNY ARIZONA—

The INA Healthplan needs physicians in family practice and most specialties in Tucson and Phoenix. Competitive salaries and comprehensive benefits including a professional development program, retirement plan, and group incentive bonus are provided. If team interaction and casual living interest you, send your CV to: Professional Relations, INA Healthplan, Inc., 6115 North 7th Street, Phoenix, Ariz. 85014.

JOUR. BONE & JOINT SURG. Complete American and British sets. Call 317-926-4471, J. L. Tofaute, M.D.

MADISON, INDIANA—Luxury office space, finished to your specifications, is now available for lease to physicians in the 606 Professional Building. If you have ever considered relocating to this beautiful, progressive community, please phone for more information. George McAtee, McAtee Management Company, 428 Jefferson St., Madison, Ind. 47250. Phone collect, (812) 265-6800.

DETROIT DIESEL ALLISON, GMC: Physician needed for our Medical Department. Responsibilities include pre-employment exams, preventive medicine and care of injuries. Industrial experience preferred. Call Karl Isenbarger, M.D., (317) 242-2626, Indianapolis.

LOCUM TENENS: Recent I.U. grad looking for employment from March 1 to June 30, 1981, before starting residency. ER experience. Will have M.D. and State License. Timothy Crimmins, 6141 Winthrop, Indianapolis 46220.

OPPORTUNITIES FOR PHYSICIANS—

There are current openings among the Indiana State Hospitals at various locations in the State for psychiatrists and physicians of other specialties at most experience levels. The Hospitals offer a very competitive entry salary plus a generous package of fringe benefits. An adjunct practice is possible beyond the regular working hours and normal on-call responsibilities. Candidates must be licensable in Indiana. Please reply with a copy of the C.V. to: FORREST ASSOCIATES, P.O. Box 850, Murray, Ky. 42071 or call (collect): (502) 753-9772. FORREST is retained by the Indiana Department of Mental Health.

EMERGENCY MEDICINE PHYSICIANS

sought for modern, moderate volume trauma center with excellent specialty and subspecialty support located in the western portion of the state. This metropolitan community offers many educational, cultural, and recreational amenities. Annual minimum guarantee plus production-based bonus, paid professional liability insurance, flexible scheduling with no on-call responsibilities. For details, contact Frank Siano toll-free 1-800-325-3982.

FULLY EQUIPPED medical building for sale or rent. Located in Bunker Hill, Ind., near Kokomo. Address all inquiries to Ruben R. Gaboya, Estate, Box 577, Bunker Hill, Ind. 46914.

VACATION HOMES FOR SALE—Two and three bedroom condominium vacation homes at The Pointe on Lake Monroe, a luxurious golfing community south of Bloomington. Excellent long or short term rental potential. May be purchased furnished or unfurnished. Low 40s to 70s. Call Belva Wilson at Owens, Bryan and Reed, Realtors, (812) 336-6888 or (812) 334-3194.

EMERGENCY MEDICINE position available: Emergency Physician to join professional group practicing in superior emergency department in Hammond, Indiana. Contact Dr. Robert F. Guthrie at (312) 474-0014 or Emergency Care, S.C. at (312) 327-0777.

Locum Tenens—COMPHEALTH. Our medical group can place a well-qualified physician in your practice during your absence. For more information, call or write: Comprehensive Health Systems, Inc., 175 West Second South, Salt Lake City, Utah 84101. (801) 532-1200.

Commercial announcements are published as a service to members of the Indiana State Medical Association. Only advertisements considered to be of advantage to members will be accepted. Advertisements of a truly commercial nature (e.g., firms selling brand products, services, etc.) will be considered for display advertising.

Charges for commercial announcements are:

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ALLERGIES

?

**or other
hidden medical
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FOR FREE INFORMATION
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**MEDIC
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P.O. BOX 1009S
TURLOCK, CALIFORNIA 95380

24 hour a day protection for life—
A non-profit, charitable & tax exempt foundation

WHAT'S NEW?

CONTINUED FROM PAGE 1

SCHERING announces the availability of Afrinol Repetabs Tablets, long-acting nasal decongestant, on an over-the-counter basis. Afrinol contains 120 milligrams of pseudoephedrine sulfate evenly divided between an outer layer and inner core providing up to 12 hours of continuous action. Recommended dose is one tablet every 12 hours for adults and children 12 years of age and older. The product is not recommended for children under 12.

MCNEIL PHARMACEUTICAL has FDA approval for marketing of ZOMAX® (zomepirac sodium), a non-narcotic, non-addicting oral analgesic for the relief of mild to moderately severe pain. Clinical studies have shown that the new drug is significantly superior to aspirin and as effective as narcotic analgesics. ZOMAC inhibits prostaglandin synthesis and should be given under close supervision to patients with upper gastrointestinal tract or renal diseases. It is dispensed in 100 mg tablets.

UPJOHN DIAGNOSTICS announces the availability of a new radioenzyme assay kit for the measurement of dopa for investigational use. Dopa levels may be determined in diagnosis of certain melanomas and neuroblastoma in children. It also is used to monitor the success of L-dopa administration in Parkinson's disease patients.

NORWICH-EATON PHARMACEUTICALS is introducing Voxin®-PG, a respiratory decongestant and moisturizing expectorant. Voxin-PG is indicated in respiratory conditions with tenacious mucus plugs and congestion. Such problems may include sinusitis, pharyngitis, bronchitis, asthma and serous otitis media. Each long-acting tablet contains 75 mg of phenylpropanolamine hydrochloride and 400 mg of guaifenesin in a special base.

ENCYCLOPAEDIA BRITANNICA announces the publication of *Medical and Health Annual—1981*. Among many up-to-date discussions for the laity is a five-part symposium on cancer which is dedicated to the purpose of relieving the public of the many misconceptions and myths concerning the disease. Three regular departments are included: The World of Medicine, Health Education Units, and First Aid Handbook. 448 pages, \$16.95.

HEWLETT-PACKARD announces a real-time, phased array ultrasound scanner for diagnostic imaging in abdominal, cardiac and OB/GYN applications. The image is sharply defined. An automatic focusing technique keeps the field of view in focus at all times. The system is cart-mounted and can be moved from the ultrasound lab to the ICU and CCU.

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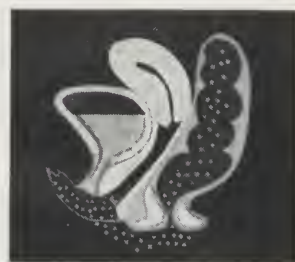
ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice

- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (Federal Register, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

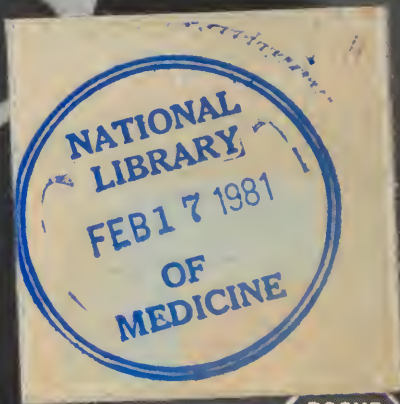
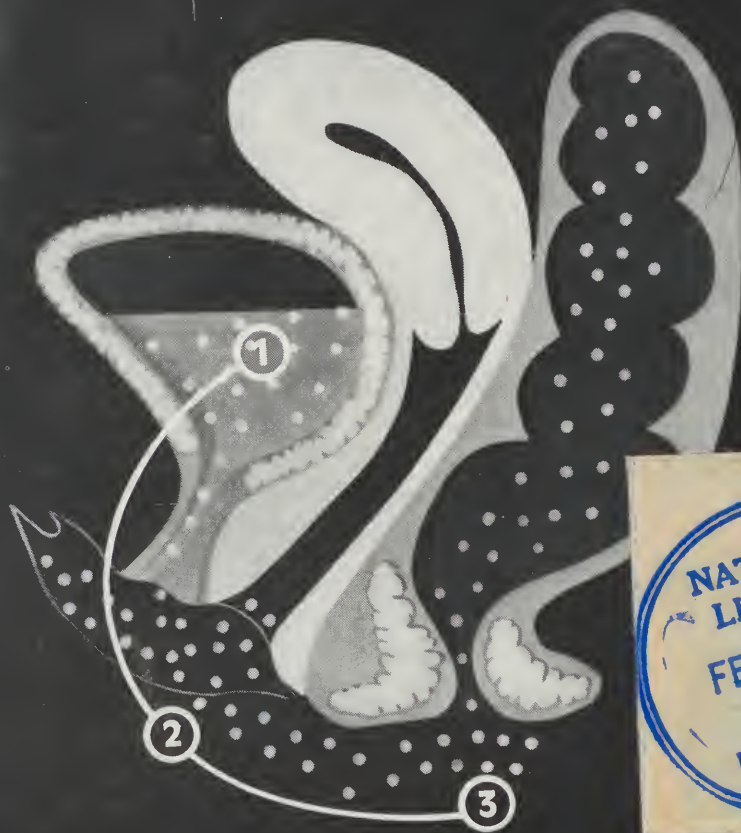
ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the BactrimTM 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of

Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has no significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

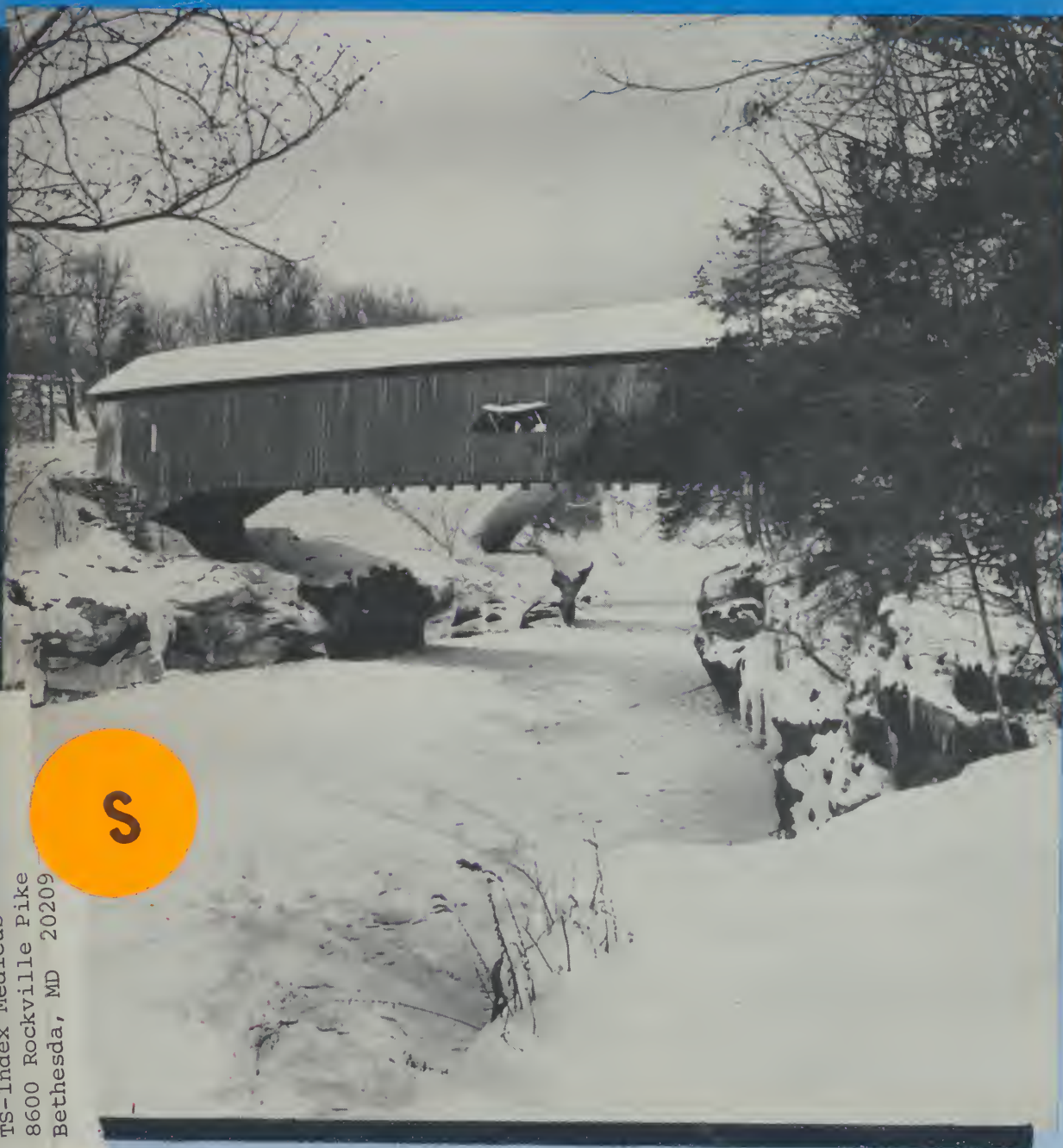
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The JOURNAL

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STATE MEDICAL ASSOCIATION



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Inside: MUCOPOLYSACCHARIDE STORAGE DISORDERS
A Continuing Medical Education Article

half-life

Just one built-in advantage

Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough

Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued.

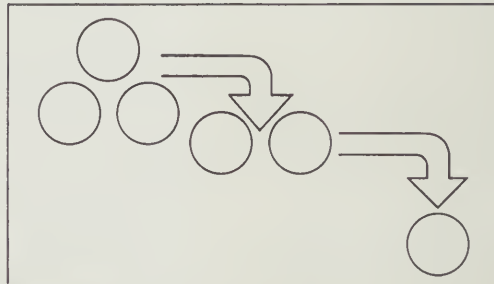
Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for

the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation

When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



*in the management of
symptoms of anxiety*

Valium®
diazepam/Roche
2-mg, 5-mg, 10-mg scored tablets

*effective therapy through
efficient pharmacodynamics*

Before prescribing, please see summary of product information on next page.



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders, atetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

WHAT'S NEW?

MEDEC, INC., maker of patient education video programs, announces the release of a videotape program on Breast Self-Examination. The tapes are designed for office use, are professionally produced and edited, and require 10 to 15 minutes for viewing. MEDEC has a variety of patient-oriented programs on such subjects as high blood pressure, low salt diet, and heartburn.

SEARLE has received FDA approval to market Flagyl I.V.[™] (metronidazole HCl) for treatment of life-threatening anaerobic bacterial infections. Flagyl I.V.[™] is particularly effective against *B. fragilis*, which is sometimes resistant to other antimicrobial drugs such as clindamycin, chloramphenicol, and penicillin.

SEARLE has received FDA approval to market oral Flagyl (metronidazole) for treatment of serious infections caused by anaerobic bacteria. Flagyl, available in both 250 mg. and 500 mg. tablets, now can be used to treat anaerobic infection either as initial therapy or as oral follow-up to Flagyl I.V.[™] antibacterial therapy. Both forms of the drug are particularly effective against *Bacteroides fragilis*.

THE UNIVERSITY of Chicago Press has released the third edition of *The Battered Child* by Dr. C. Henry Kempe and Ray E. Helfer. The new edition provides a comprehensive survey of many recent advances in this field and also indicates future avenues of investigation. Twenty-three of the chapters are entirely new. \$25.

PRENTICE-HALL announces the fourth edition of *Nonprofit Corporations, Organizations, and Associations*. It is a comprehensive volume which contains all the latest changes in nonprofit organization law and practice—in terms of both federal and state law. It is a definitive source for forming, operating, and dissolving virtually every type of nonprofit organization. 1,250 pages, \$44.95.

ANCHOR PRESS has published *Prisoners of Pain* by Arthur Janov, a psychologist who previously wrote *The Primal Scream*. The theme of the book is "unlocking the power of the mind to end suffering." In the introduction Dr. Janov explains, "The antidote is the very feelings which, repressed, made us sick." 288 pages, \$11.95.

CONTINUED ON PAGE 124

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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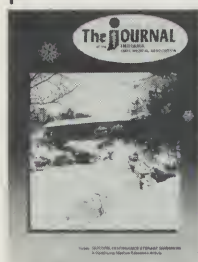
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ABOUT THE COVER

The covered bridge is located at Turkey Run State Park, which also features deep rock-walled canyons and gorges through which Sugar Creek flows. The park is situated on Ind. 47 near Marshall in Parke County. PHOTO COURTESY OF INDIANA DEPT. OF NATURAL RESOURCES.



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MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis

FOLKS LIVING in Bluffton, Ind., may know about Dr. Walter N. Fowler because that's where he practiced medicine, but most people have never heard of him. Kemper doesn't list Dr. Fowler's name, nor is it to be found in the obituary file of the medical library at I.U.M.C.

In 1907, however, Dr. Fowler was described as the "pluckiest" man in Indiana. He had joined with Walter Wellman in 1906 and was part of a five-man crew attempting to fly to the North Pole. Dr. Fowler not only served as the crew's surgeon, he was also an expert mechanic and telegrapher.

The plan was to reach and locate the North Pole in a motorized, gas-filled balloon. The distance from Spitzbergen and return was about 1,200 miles. With perfect weather and a gentle tail wind, the trip to the Pole could be done in a day. Head winds could prolong the time to as long as five days.

The principal concern was the accumulation of snow or sleet on the more than half-acre area of the 250-foot-long gas bag. To reduce this threat, hot air from the cooling mechanism of the two gasoline engines was circulated within the bag. In addition, a unique control device known as an "equilibrator" eliminated the need for ballast and for venting gas. This device was meant to hold the altitude of the craft constant. It consisted of two parts, the "snake" and the "sausage."

The snake was a thick, rope-like structure covered with steel scales. This was meant to drag over the ice the exposed points of the scales, causing a braking effect. The sausage consisted of a 150-foot segmented tube containing 1,500 pounds of provisions. This was waterproof, capable of floating, and covered with smooth steel scales. These devices could be reeled in or



This photo of Dr. Walter N. Fowler appeared in the *Indianapolis Star* Aug. 4, 1907, a month before his ill-fated journey to the North Pole.

out with winches. If the need arose for throwing out ballast (as with ice accumulation on the bag), an appropriate length of sausage could be reeled out to float along in the water or to slide over the ice.

The airship, christened the

America, commenced its ill-fated journey on Sept. 2, 1907. It encountered a very severe storm and was forced down after only 35 miles.

Admiral Robert E. Peary and Matthew Henson reached the Pole on foot less than two years later (April 6, 1909).

The Swedish explorer Salomon Andree had preceded the Wellman group in 1897 in an attempt to fly over the North Pole in a balloon (and lost his life in the unsuccessful venture).

Amundsen and Ellsworth eventually flew the airship, *Norge*, over the North Pole on May 12, 1926, having been preceded a few days earlier by Richard Byrd and Floyd Bennett in a Fokker monoplane.

Had the Wellman group been successful, Dr. Fowler would be better known today. His courage in this important pioneering endeavor merits his remembrance.

A South Bend Watch on the Way to the North Pole

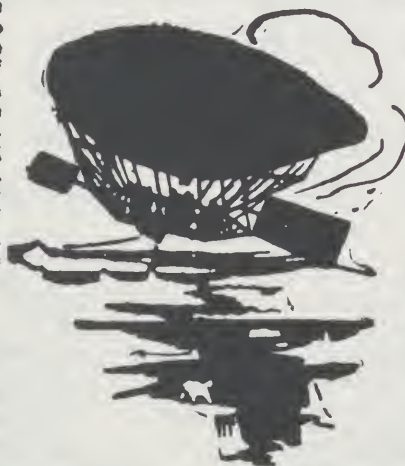
A dash of more than a thousand miles in an airship over bleak and frozen arctic wastes; a change from summer heat to bitter cold; exposure to every variation of temperature, position and altitude and the jare and jolts inseparable from cramped quarters.—Here is a test of time-keeping that in the opinion of Walter Wellman can be met by just one watch—The South Bend Watch.

After careful investigation, every man of the five composing the Wellman airship expedition to the north pole, the most remarkable expedition in the history of arctic exploration, has been equipped with a South Bend Watch.

Because every South Bend Watch is so made and tested as to be accurate under strains that other watches might not meet, it is the best watch for you, for ordinary everyday use. A watch that will keep time frozen in ice or boiled in water is not likely to vary under any treatment it will receive at your hands.

We guarantee them to be satisfactory time-keepers.

South Bend Watches are only sold by first-class dealers. They will explain to you how, through the wonderful South Bend Balance Wheel, a South Bend Watch adjusts itself to every temperature automatically.



The South Bend (Ind.) Watch Company ran this as in the March 8, 1907, issue of the *Indianapolis Star*. Each of the five men in the Wellman airship expedition to the North Pole was equipped with a South Bend Watch.

EDITORIALS

AAP Announces Campaign to Combat Leading Child Killer—Car Crashes

Each year, nearly 1,000 children between birth and age 5 are killed in car crashes—60,000 are injured.

Car accidents are the No. 1 preventable cause of death for children from birth onward.

The American Academy of Pediatrics has announced a new major program to protect babies and children as passengers in motor vehicles.

"First Ride . . . Safe Ride" is the best advice going and is also the name of the program. Newborns, in their first car ride, are usually cradled in mother's arms in the right front seat, the most dangerous seat in the car. The experts call this method of transporting babies "the child crusher method." A front-ender or a sudden stop may crush the child between the mother and the dashboard.

The answer is twofold: Every child should be protected by a safety seat and every child big enough and every adult, especially if holding a child, should wear a seat belt.

More children die each year as a result of car crashes than from polio, diphtheria, rubella, mumps and measles. Pediatricians are going to educate the public. Hospitals with obstetric services should see to it that a newborn is well protected during the first ride home. No parent should be allowed to take a newborn from the hospital unless adequate protection is evident.

Such an impressive lesson would be a good example for future trips. Most parents, if reminded in this way of the necessity of child-protection in autos, would tend to continue the practice thereafter.

Let's do it!

Survival of AMA Jail Program In Doubt; Local Help Needed

Indiana was one of the first states in which the AMA Jail Health-Care Reform Program was introduced in 1975.

Nationally, Indiana is leading other states in successfully accrediting jails in accordance with standards established by the small group of states that pioneered the program. Ten Hoosier jails are AMA-accredited, and 17 jails are in the active phase of accomplishing this recognition.

The jail improvement and accrediting program of the AMA and 23 state medical associations has made astonishing progress in a short time. The federal Law Enforcement Assistance Administration (LEAA) was responsible for initiating the project and has assisted it with financial grants which have funded all the activities.

But now, just as this humane undertaking is demonstrating its viability and usefulness, a federal funding problem may remove the financial backing and even terminate the LEAA.

THE INDIANA STATE MEDICAL ASSOCIATION

1981 Annual Meeting—Oct. 23-26

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TRUSTEES

District	Term Expires
1—John A. Bizal, Evansville	Oct. 1983
2—Harold M. Monifold, Bloomington	Oct. 1981
3—Richard G. Huber, Bedford	Oct. 1982
4—Mark M. Bevers, Seymour	Oct. 1983
5—Paul Siebenmorgen, Terre Haute	Oct. 1981
6—Davis W. Ellis, Rushville	Oct. 1982
7—Donald C. McCallum, Indianapolis	Oct. 1983
7—John G. Pontzer, Indianapolis	Oct. 1981
8—Jack M. Walker, Muncie	Oct. 1981
9—John A. Knotte, Lafayette (Chairman)	Oct. 1982
10—Charles D. Egnatz, Schererville	Oct. 1983
11—Herbert C. Khalouf, Marion	Oct. 1981
12—DeWayne L. Hull, Fort Wayne	Oct. 1982
13—Donald S. Chamberlain, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gourieux, Evansville	Oct. 1982
2—Ralph W. Stewart, Vincennes	Oct. 1983
3—Eli Hallal, New Albany	Oct. 1983
4—William E. Cooper, Columbus	Oct. 1982
5—Benny Ko, Terre Haute	Oct. 1982
6—Clarence G. Clarkson, Richmond	Oct. 1981
7—John D. MacDougall, Beech Grove	Oct. 1982
7—H. Marshall Trusler, Indianapolis	Oct. 1982
8—Richard L. Reedy, Yorktown	Oct. 1982
9—Mox N. Hoffman, Covington	Oct. 1983
10—Walfred A. Nelson, Gory	Oct. 1982
11—Edward L. Longston, Flora	Oct. 1983
12—Michael O. Mellinger, LaGrange	Oct. 1983
13—John W. Luce, Michigan City	Oct. 1982

The correctional health-care specialists and the numerous educational materials, funded by the federal grants, will be sorely missed if the financial aid is discontinued. A resolution presented by the Michigan State Medical Society at the recent meeting of the AMA Delegates strongly urged the AMA to continue the project and even enlarge it by the use of private and/or state funds; the resolution, however, was defeated.

In the five years the program has been active, it has been demonstrated that establishing good medical care in a jail is a money saver rather than an expense. Local authorities have found that, although humane considerations may have been the spark that started it all, the bottom line is also important.

It is now evident that the most economical way to run a jail is to develop a proper medical care system.

The general public, including prisoners, is more litigious today than ever before. Various individuals and organizations are devoted to the active support of civil rights. Prisoners are apt to sue for redress in cases of unsatisfactory or absent medical attention.

One sheriff in Indiana found that the practice of sending a possibly sick prisoner to a hospital emergency room was an expensive way to provide care. The cost of emergency room service and the time of an officer escort added up to enough county money to suggest the establishment of a medical office in the jail and the appointment of a physician on a regular part-time service.

The AMA plans to continue its accreditation program with the help of participating states. The survival of this humane effort will depend on local financing and on the participation of many public-spirited physicians and lay individuals. It figures to be a continuing success. It also figures to be an expanding success. If county budgets find that it is a money-saving activity in addition to being an honorable way to take care of prisoners, it should prosper without federal financing.

Max Fine Dumps NHI, Joins the 'Opposition'

Max Fine, who for 10 years was promoting National Health Insurance, has changed jobs. He was director of the Committee for National Health Insurance, a labor-supported organization. His new job is president of Medical Cost Management Systems, Inc., a group which sets up self-funding private employee health insurance.

To account for the switch, Fine explains that the concept of government-supported medical service has changed and "the problem now is cost."

Even while working with labor groups, Fine was in favor of catastrophic insurance in the hands of private industry. Labor has always opposed discussion of catastrophic insurance because, according to Fine, it was felt

that such interest would detract from labor's campaign for government-supported complete medical care.

Fine thinks that the cause of National Health Insurance is at a low ebb. If NHI isn't dead, "at least it will be dormant for a long time." One reason for this is that the drive for NHI has prompted private insurance and increased the number of people covered to a significant degree.

Fine's boss is John Amos of American Family Corporation. He thinks that self-insurance saves money. There are strong incentives in the system to question excessive charges. Amos concludes: "When fees and charges are in line" the savings result in lower payroll deductions and higher paychecks.

Statistics Show Infant Death Rate Now Is Lowest in U.S. History

The infant death rate currently is the lowest in U.S. history. The scientific journal *Pediatrics* announces a provisional figure of 12.8 deaths per 1,000 live births for the 12 months ending June 1980. The 1979 rate was 13.0; and the 1978 rate was 13.8; and the 1930 rate was 64.6.

The decrease is due principally to the reduction in deaths caused by birth trauma and hypoxia, and to declines in deaths from diarrheal diseases, infectious diseases and pneumonia.

Physicians Take Initiative To Control Health Care Costs

The American College of Physicians has been funded by the Hartford Foundation to evaluate specific diagnostic tests and therapeutic procedures in an effort to curb rising health care costs without compromising quality. The project will be called the Clinical Efficacy Assessment Program (CEAP).

Robert H. Moser, M.D., executive vice-president of the ACP, said:

"The College realizes that the rising cost of medical care contains many elements that are beyond the power of physicians to control. We cannot control inflation nor the 'state of the art' which produces new diagnostic and therapeutic tools—most of which are wonderful but expensive.

"We also cannot control the public appetite of 'medical care.' We can, however, 'control' through education—by providing reliable information on the clinical usefulness of existing tests and procedures—that will enable physicians to select appropriate tests and therapies and abandon those that are out-of-date or ineffective.

"This new ACP program certainly will not be the total answer to rising costs of health care, but it is a big step and it is within the power of physicians."

LETTERS

Armed Forces Provide Source Of CME Financial Help

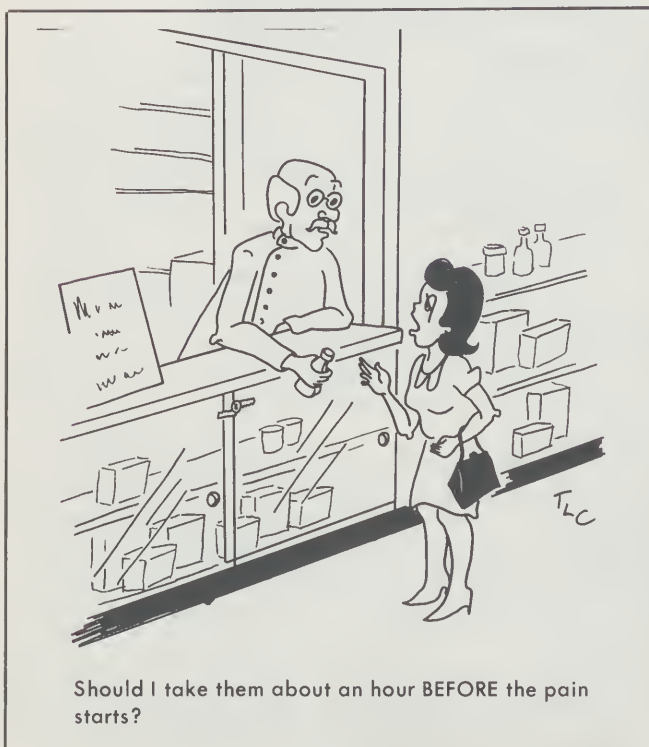
The *AMA News* (Dec. 5, 1980) reported on a survey of 3,500 physicians with regard to continuing medical education.

The average physician spends nearly 13 days a year attending formal CME courses; 52% believe that CME should be required; 44% feel that the costs of CME are excessive, but 35% believe that while high, the costs are justified. The average physician spends over \$4,000 on CME.

The active and reserve components of the armed forces are active supporters of CME, and herein lies another advantage of part-time service. For example, the National Guard will pay the direct costs of one course each year for its doctors, and the time spent is credited to annual training requirements. The Reserve components have similar benefits.

There is little doubt now that CME is here to stay. Support by the Armed Forces is important and should be known to all physicians.

John E. Jesseph, M.D.
Col., M.C., Indiana National Guard
and
Chairman, Dept. of Surgery,
Indiana Univ. School of Medicine



Aspirin Dosage For Cardiovascular Effects

We wish to call attention to a well-documented aspect of the pharmacology of aspirin that should not be overlooked in the cardiovascular use of this drug. Acetylsalicylic acid (ASA) enters the systemic circulation in two forms: some is absorbed intact, and some is hydrolyzed to salicylic acid during absorption and first passage through the liver. Factors that slow the absorption process will cause relatively lower serum levels of ASA and correspondingly greater serum levels of salicylic acid.¹

ASA and salicylic acid have similar clinical anti-inflammatory effects, but several potentially important pharmacologic differences have been identified in the past 10 years. ASA appears to exert many of its effects by rapidly acetylating (and thereby irreversibly inhibiting) the enzyme cyclooxygenase,² which mediates synthesis of prostacyclin, thromboxane A₂, and stable prostaglandins. Salicylic acid may or may not have much weaker antiprostaglandin action, or it may antagonize this effect of ASA.³ Although salicylic acid is less potent than ASA, it persists much longer in the blood, so that when aspirin is given in the usual dosage of two or three tablets every four to six hours, many of the effects observed may well be caused by salicylic acid.

Giving standard doses may not be the best way to achieve the optimal effects of aspirin on the cardiovascular system. For this indication, it is preferable to design aspirin dosage so that the inhibition of thromboxane A₂ formation by the platelet is maximized while the inhibition of prostacyclin formation by the vessel wall is simultaneously minimized. Whereas vascular subendothelium probably regenerates cyclooxygenase,⁴ platelets cannot. Therefore, the effect of a single dose of aspirin is of short duration in vascular endothelium and smooth muscle cells but of prolonged duration in the platelet.⁴⁻⁷ Moreover, it appears that the ASA concentration needed to inactivate platelet thromboxane A₂ production may be lower than that required to inactivate subendothelial prostacyclin formation.⁵⁻⁹ Accordingly, through the administration of a single small dose of aspirin every few days it should be possible to interrupt platelet thromboxane A₂ formation while leaving intact the prostacyclin-generating capacity of the vessel wall.

A therapeutic regimen based on this information might involve administering one aspirin tablet every other day, for example. Under such circumstances, the beneficial "aspirin" effect will depend exclusively on ASA concentration. Because the acetylation process is a rapid kinetic reaction, the effect should be predominantly influenced by the peak serum concentra-

CONTINUED ON PAGE 66

Take advantage of a great association!



Get these special benefits—available with your Medical Association membership

Expanded "people-planned" protection is now part of Blue Cross and Blue Shield coverage—and you're eligible! It's one more exclusive advantage of belonging to the Indiana State Medical Association—entitling you to special group rates for these benefits:

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LETTERS

CONTINUED FROM PAGE 64

tion of ASA obtained with isolated, individual aspirin doses. It is precisely this peak concentration after a single dose that can be expected to vary substantially, depending on numerous factors. Because of the uncertainty of the clinical implications of varying ratios of ASA to salicylic acid, we suggest that the brand (and lot) of aspirin used in investigations be specified, that the characteristics of its dissolution be described, and that the conditions under which the aspirin is administered be carefully defined.

**Thomas L. Wenger, M.D.
J. Heyward Hull, M.S.
Burroughs Wellcome Company
Research Triangle Park, NC 27709**

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Gross Transformations

Commentary

MOST PEOPLE who accept the theory of evolution think of it as a survival of the fittest of random mutations—small changes that occur by chance.

Some put the accent on the survival of the fittest, and express it as a "dog eat dog" philosophy.

**RICHARD J. NOVEROSKE, M.D.
Evansville**

But the fittest often means qualities more subtle than that—a blending of the ability to adapt or give with a situation, with the quality of endurance, and the ability to create—to bring forth in the face of adversity.

For many students, the changes that occur by chance or mutations have not been a satisfactory answer for evolution—even when linked to natural selection or survival of the fittest or elimination of the unfit—however you want to name it.

A number of thinking people with a better knowledge of mathematics than I have pointed out the enormous odds against anything like a thinking, creative man mutating from primordial slime, even over several billion years. The statistics are against it.

There must be something more to evolution than natural selection of random mutations.

D'Arcy Wentworth Thompson, the late Scottish author of *On Growth and Form*, thought so. In

his book, written during World War I and revised during World War II, he approached growth and form not only as a mathematician or physicist would, but also as one who has a deep background in biology and the classics. The result is a readable book that gently leads one on—much as Socrates would, were he still alive—to the conclusion that there is an adaptive force or collection of forces in living beings that cause the organisms to react with big changes to stresses or demands on them. It is not just an accidental small mutation or series of small changes, but a gross transformation—a helpful big change—that allows the organism to live better or more fully.

D'Arcy Thompson's view of life was more dynamic—more alive—than most people see it. He not only saw form determining function, but also function determining form—or to put it another way, not only does the shape of a part of the body determine what it can do, but what it must do causes the body to react—somewhere in its being—to develop a shape that will meet the demand put on it.

This theory of D'Arcy Thompson's was heresy when he proposed it in 1917, and is still considered so in some quarters.

But see for yourself. Try his book, *On Growth and Form*, and let the intriguing text and illustrations work on your mind.

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Adjunctive **Librax**[®]

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for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax[®]

For complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hyperplasia, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or cimetidine Hydrochloride.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librax[®] (chlordiazepoxide HCl/Roche) to known addic-

tion-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression: suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug

and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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Last season they were 11-2, and won their league championship.

Team captain Mike Caminiti hopes to continue wrestling in college, and eventually work with his father, a building contractor.

When Rodell Harris isn't tossing around opponents, he's tossing salads. He plans to own his own restaurant.

Mark Howard will study business management and accounting in college, and Noe Santiago is considering a career in art.

Winning is important to these guys.
They give everything their best shot.

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We care about the same things.
We dream the same dreams.
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Dr. Link in 1970 photo

Goethe S. Link, M.D. 1879-1980

Dr. Goethe S. Link, 101, retired surgeon, professor and author, died Dec. 31 at the Morgan County Memorial Hospital, Martinsville.

He was well known as a philanthropist, astronomer and naturalist. He also was a linguist, teacher and even a balloonist.

In a career that spanned almost seven decades, Dr. Link helped found the Indiana University School of Medicine and served as the first chairman of its anatomical laboratory, performed the first cesarean section ever attempted at Methodist Hospital (1910), and did the first total operation on the thyroid gland in Indiana (1911).

Dr. Link performed the first total gastrectomy for cancer in Indiana and the first caudal drainage of the pancreas for calcinosis in the world; the latter earned international attention and a place for him in medical literature.

IN MEMORIAM

It is believed that the only medical facility named in Dr. Link's honor is the Goethe Link Centenary Vascular Laboratory at St. Vincent Hospital in Indianapolis, dedicated in October 1979.

This fall, Dr. Link was presented a plaque as a "testimony of sincere appreciation" by the United States Section of the International College of Surgeons on the occasion of his 41st anniversary since being elected to the College.

He was enrolled in the Indiana State Medical Association's Fifty-Year Club in 1952.

Dr. Link was born in Selvin in Warrick County. As a boy, he helped his father, a schoolteacher turned physician, on house calls. He finished grade school at age 11 and high school in 1894 at age 15. He entered Wabash College but later transferred to Indiana University, from which he was graduated in 1898. He spent a year working in a Petersburg drugstore and became a registered pharmacist. In 1902, he received his M.D. degree from the Central College of Physicians and Surgeons, Indianapolis.

Dr. Link, who retired when he was 88, concentrated on thyroid surgery—his lifetime record of 22,043 thyroidectomies is virtually unequalled. He studied under the great surgeons of his day, including Dr. Charles Mayo.

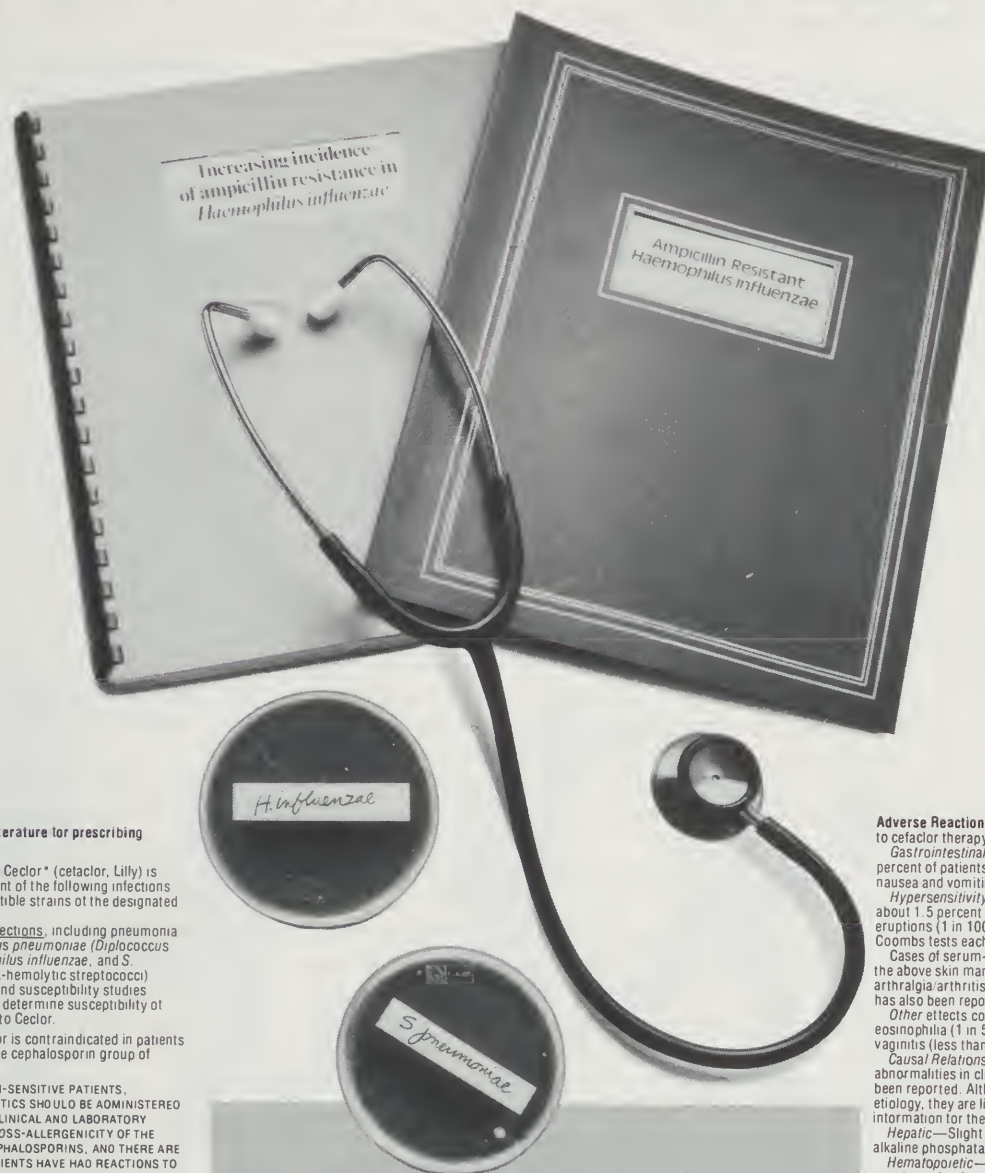
But medicine was not his only interest. As a scientist, he learned to explore anything he took an interest in.

In 1909 he and his partner, J. R. Irwin, won the National Balloon Race by piloting a gas balloon from the then-new Indianapolis Motor Speedway to Westmoreland, Tenn., a 19-hour, 250-mile trip. That trophy is now in the Smithsonian Institute.

Dr. Link lived on a 61-acre wooded tract near Brooklyn in Morgan County where he and his wife Helen spent years developing an extensive garden. Ultimately, they had one of the largest daffodil plantings in the Midwest.

A recognized authority on birds and snakes, he also was a founder of the Indiana Astronomical Society and in 1948 donated the observatory which bears his name to Indiana University. An asteroid discovered by I.U. astronomers in 1968 is named in his honor. The Society named Dr. Link a Patron in 1950—the highest honor that can be bestowed on an amateur astronomer.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cefclor* (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefclor therapy are uncommon and are listed below. **Gastrointestinal** symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transient abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefclor* (cefclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

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7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

100061

CANCER CORNER

A national survey shows that public understanding of breast cancer has increased considerably over the past seven years, according to the National Cancer Institute.

This improves prospects for a downturn in deaths from breast cancer, said Dr. Vincent T. DeVita, Jr., NCI director. But findings from the study also suggest a need for further public education about the disease.

Ninety-six per cent of women surveyed had heard of the early detection technique of breast self-examination, compared to 77% of women surveyed in 1973. Women who are taught breast self-examination by a doctor are more likely to practice it than women who learn the technique in other ways, the survey shows.

About 40% of the women surveyed—10% more than in 1973—say they use the technique monthly or more often. Both the National Cancer Institute and the American Cancer Society recommend that women practice the technique monthly. Studies suggest that women who practice BSE detect cancer earlier than they otherwise would.

The survey was conducted by Opinion Research Corporation of Princeton, N.J., in the fall of 1979, using interviews among a national probability sample of 1,580 adult women in the United States and 720 spouses or partners. Additional samples of black and Hispanic women also were interviewed.

The survey found that 76% of women say cancer is their most serious health concern. More than half of those women say that breast cancer is the most worrisome of all cancers, compared to 21% who said so in 1973. Concern about cancer far exceeded concern about other health problems, such as stress, reported by 7%, and high blood pressure, reported by 6%.

Breast cancer is the number one

cancer killer of women, with about 100,000 new cases and about 37,000 deaths expected in 1981. It leads all causes of death for women between the ages of 40-44. About one of every 11 women is expected to develop breast cancer at some time during her life.

Cancer Survey Shows Progress in Understanding Breast Cancer

Women's general knowledge about breast cancer has increased substantially since the 1973 survey, conducted by the American Cancer Society. Respondents were more aware of risk factors such as being older, especially over 50, and having a family history of breast cancer. However, 50% of the respondents incorrectly believed that a bump or bruise to the breast can cause breast cancer.

The NCI survey showed that 61% of the women were aware of x-ray mammography, an increase from the 43% aware of mammography in 1973. Few, however, had heard any negative publicity about mammography, such as risk from exposure to x-rays. Nineteen per cent of respondents reported having had a mammogram.

Dr. DeVita said the study indicated that many women want to play a more active role in decisions affecting their health. "Fifty-five per cent said they would not give their doctor prior consent to remove a breast immediately following surgical biopsy if cancer were discovered," said DeVita. "Instead, they prefer to make the decision about cancer treatment in two stages. Furthermore, 90% said they would seek a second medical opinion."

Of the samples of urban black and urban Hispanic women, 53% of black women report practicing breast self-examination monthly or more often, compared to 24% of Hispanic women. Black and Hispanic women were generally less

knowledgeable about the disease and its treatments. Overall, younger women tended to be more knowledgeable generally and consider breast cancer more of a threat to their health than older women.

The survey suggested that men have the potential to play an important role in dealing with breast cancer. Those men most knowledgeable about the disease were found to have wives or partners who are the most thorough in breast self-examination.

Dr. DeVita attributed the increase in public understanding of breast cancer to several factors: The 1970s were years of considerable change in the diagnosis and treatment of breast cancer. The mastectomies of two nationally known women, Mrs. Betty Ford and Mrs. Happy Rockefeller, received widespread media coverage, and public awareness of the disease jumped. As breast cancer survival rates increased, medical controversies, such as the value and potential hazards of x-ray mammography, one-stage vs. two-stage diagnosis and treatment procedures, less surgery, chemotherapy and radiation treatments, and breast reconstruction were widely covered by the news media.

"The survey tells us clearly that the public needs to know more," Dr. DeVita said. "While much progress is being made in breast cancer treatment, we still are working toward an understanding of causes. Meanwhile, the key to optimal survival is education, early detection and prompt, appropriate medical intervention."

(For further information, the management summary and technical report are available from the Office of Cancer Communications, National Cancer Institute, Bldg. 31, Rm. 10A18, Bethesda, Maryland 20205.)

New Publications

"Breast Cancer: A Measure of Progress in Public Understanding," management summary and program recommendations.

"Breast Cancer: A Measure of Programs in Public Understanding," a 320 page technical report.

"The Breast Cancer Digest," information on public education programs on breast cancer.

"Information on Public Information Workshops Related to Breast Cancer." All available free from NCI, OCC, Bethesda, Maryland 20205.

Scientific Meetings

March 18-21, 1981: Third International Conference on the Adjuvant Therapy of Cancer. Tucson, Ariz. To be held at the Tucson

Convention Center and sponsored by the Cancer Center Division of the University of Arizona. Inquiries: Mary Humphrey, Conference Coordinator, Cancer Center Division, University of Arizona, Tucson, Ariz. 85742.

April 13-15, 1981: Twenty-Second General Meeting of the British Association for Cancer Research. Sponsored by the European Association for Cancer Research. Keele, Staffordshire, England. Inquiries: Dr. M. Moore, Hon. Sec., BACR, Paterson Laboratories, Christie Hospital and Holt Radium Institute, Manchester, M20 9BX, England, U.K.

April 27-30, 1981: Seventy-Second Annual Meeting of the American Association for Cancer Re-

search. Sheraton Washington, Washington, D.C. Registration fees, \$25 for members and non-members and \$5 for predoctoral students with official statement confirming status. Official abstract form will be used and bulletin that states the regulations involving abstract submissions and presentations has been sent to active members. Papers will be published in March 1981. Proceedings of the American Association for Cancer Research. Inquiries: Frederick S. Philips, Secretary-Treasurer, American Association for Cancer Research, 1275 York Ave., New York, N.Y. 10021.

May 1-2, 1981: Annual Meeting of the American Society of Clinical Oncology. Sheraton Washington, Washington, D.C.



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Pap Smear Should Be Used Routinely To Detect Cancer of the Cervix

Consensus Report

THE NATIONAL Institutes of Health conducted a Consensus Development Conference in July 1980 on Cervical Cancer Screening: The Pap Smear. (Use of the Pap smear for other genital cancers was not included in the review.)

Questions addressed were: Does screening with a Pap smear affect the mortality of cervix cancer? Is the Pap Smear safe as a screening procedure? Should the Pap smear be used as a routine screening? At what age should it be done regularly? At what age is it no longer rewarding? What is the optimal screening frequency? Should recommendations made in response to the questions immediately above be modified for certain high- or low-risk groups?

Other questions were: What critical factors are needed to insure that the procedure is reliable? Following screening what are the responsibilities of the screeners?

There are three characteristics of a disease which make it suitable for screening. The disease must have serious consequences, it must have a treatment which when applied to the screen-detected stage is more effective than when applied in the symptomatic stage, and it must have a high prevalence. The conference decided that cancer of the cervix satisfied these requirements.

Evidence suggests that there is a falling incidence of invasive squamous-cell carcinoma and a decreasing mortality from cervical carcinoma. Carcinoma in situ is being detected with increased frequency. The majority of invasive cancers occur now in women who have not been screened at all, rather than in those screened too infrequently.

There are no known adverse effects ascribed to the screening technique. However, if the Pap smear is incorrectly evaluated by the laboratory, or is incorrectly responded to by the clinician, overinterpretation may result in unnecessary procedures and in possible complications.

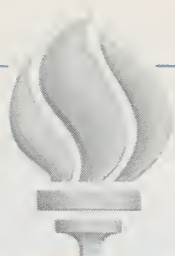
The Panel agreed that the Pap smear should be used as a routine screening procedure for cervical cancer.

Panel recommendations for screening asymptomatic women:

- Virgins need not be screened for cervical cancer.
- All women who have had sexual intercourse should be screened beginning immediately. If the first smear is satisfactory, it should be repeated in one year. If the second smear is satisfactory, the test should be repeated at intervals of one to three years.
- An exception in the case of virgins applies to daughters of women exposed to DES while carrying the female offspring.
- Four factors determine the level of risk of cervical cancer but the Panel felt that, in general, the level of risk should not be considered in determining the frequency of screening. Three factors increase the risk: intercourse before 18 years of age, a variety of sex partners, and low socioeconomic status. One factor, virginal status, lowers the risk.
- If two negative Pap smears are obtained after the woman reaches age 60, further screening for the detection of cervical cancer appears to be unrewarding.

A randomized clinical trial to determine optimal screening intervals is not recommended.

The key factors affecting reliability include a proper clinical sample, high-quality laboratory evaluation, and proper communication between the cyto-pathologist and the clinician.



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PUBLIC HEALTH NOTES

As we enter the second year of the 80s, those of us charged with the protection of the public health find ourselves at the center of many conflicts. Blessed on the one hand with a world of conveniences and luxuries unheard of by our pioneer forefathers, we also are faced with an abundance of hazards, the likes of which put to shame the threats of Indian massacres, plagues, starvation and pestilence.

Fortunately, we now have the technology to predict the *potential* risks of products such as food preservatives and additives, sugar substitutes, industrial chemicals, pesticides, etc., yet these frequently unproven effects are too often sensationalized in the news media without adequate presentation of the positive benefits. This has created an alarmed public which no longer accepts its environment with blind faith, but rather looks at its surroundings (and the protectors of it) with serious cynicism.

Unfortunately, many well-meaning individuals, agencies, and organizations, along with government, have supported the false impression that society should expect its environment to be free of *all* risks to health regardless of the cost. The expense of cleaner air and water, safer automobiles, and cleaner energy sources has been astronomical and the cost to society will be infinite if we continue to expect a totally risk-free environment.

In addition to monetary costs, there are other expenses of these idealistic desires. People are working less and earning more than ever before, with increased time and money for leisure activities such as swimming, boating, camping, traveling, hunting, sky diving, hang gliding, and others, all of which may have a direct or indirect risk to health or life. How do we determine which risks are acceptable and

which are not? Can or should the benefits involved with a risk be adequately weighed before taking it?

The dangers of recreational activities are readily recognized because the consequences are generally understood by the individual; i.e., the benefit of relaxation offsets the hazard involved. However, risks for which individual action would not be effective must be delegated to broader societal segments. Therefore, decisions regarding these hazards are delegated to groups, organizations, agencies and, finally, to government. This changes the concern from "risk to individuals" to "risk to society." This is a realistic transfer but one that is not necessarily accepted.

For example, the use of the automobile seat belt has been statistically proven to significantly decrease the chance of a serious injury or death when used 100% of the time; yet a majority of Americans don't wear them at all, and only a small percentage use them all of the time. The public even circumvented every attempt by government to increase use through regulated warning devices, etc. The statistics and/or the sources are either dis-trusted, misunderstood, or just deemed insignificant.

Government may be able to protect society from its various risks, but it is inconceivable that it will do so without some infringement upon individual perceived freedoms. This is a dilemma which we cannot continue to disregard.

Individuals can and should delegate the data-gathering to responsible technicians and the assimilation of this information into an understandable form by responsible government, but should not delegate the right to the final decision-making process. Each person is the decision-maker regarding his own health—that is a right and a responsibility!

The best way to protect one's freedoms is to be as well informed as possible so that the decisions made are responsible and realistic. Therein lies the true challenge to those of us involved with public health. It is the responsibility of health professionals to *inform the public* of health risks in an understandable and acceptable manner in order that intelligent health decisions are made by the individuals. Society would function more efficiently and effectively if this information could be provided to the public through education and persuasion rather than by regulation—idealistic, maybe; but not impossible!

Theoretically, for every health risk situation there must be some coincidental benefits; if not, we could just eliminate the risk and be healthier. It also would seem logical that a concerned decision-maker would want to know what his health risks are and what, if any, benefits accompany these risks. If this is true, then public health's task becomes easier—we must develop risk/benefit ratios for as many health hazard situations as possible. Once such information is disseminated and we are confident that it is understood, then it becomes the responsibility of each individual to determine what life-style he wishes to follow and to accept the consequences of that decision. We can't make people healthy—we can only help them to help themselves.

The use of risk/benefit ratios also will allow agencies such as the State Board of Health, the Indiana State Medical Association, and others to develop realistic priorities based upon sound, logical judgment rather than emotion and response to external pressures. I hope that you share with me this challenge and that our organizations can continue to work closely and cooperatively during these extremely important times!



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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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nents alone is rare. (For a complete list of side effects reported with Limbitrol, please consult full disclosure.)

References: 1. Paulson GW. *NY State J Med* 79: 193-195, Feb 1979. 2. Hollister LE. Antipsychotic medications and the treatment of schizophrenia, chap. 9. in *Psychopharmacology: from Theory to Practice*, edited by Barchas J, et al. New York, Oxford University Press, 1977, pp 134, 145. 3. Damina EF. Antipsychotics, phenothiazines, thioxanthenes, butyrophenones and rauwolfia alkaloids, chap. 25, in *Drill's Pharmacology in Medicine*, ed. 4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p. 476. 4. Savner R, DiMascia A. Extrapyramidal syndromes and other neurologic side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, ed Lipton MA, DiMascia A, Kilham KF. New York, Raven Press, 1978, p. 1021. 5. Daniloff PT, Stensan RL. *Dis Nerv Syst* 37: 629-635 Nov 1976.

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Please see summary of product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated.

Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) — bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- ☐ Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients
- ☐ Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

- ☐ An initial dosage of three tablets is recommended
- ☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary
- ☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

- ☐ T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness
- ☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom — insomnia
- ☐ Entire dosage h.s. to take maximum advantage of the sedative effect

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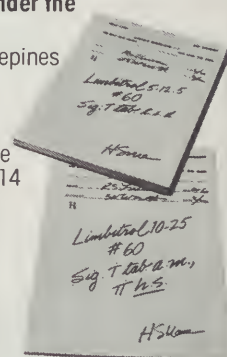
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
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To obtain Category 1 credit for this month's article, complete the quiz on Page 101.



Mucopolysaccharide Storage Disorders

THE MUCOPOLYSACCHARIDOSES are inherited lysosomal storage disorders associated with faulty degradation of mucopolysaccharide (MPS). Excessive amounts of MPS

The specific type of MPS is determined by the composition of the disaccharide unit; many of the carbohydrate units are sulfated. Degradation of MPS involves the step-

a characteristic pattern of MPS storage and associated clinical manifestations. For example, the Hurler Syndrome is associated with deficient activity of α -L-iduronidase.

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accumulate in tissues, and large amounts are secreted in the urine. The progressive clinical signs result from the lysosomal storage and subsequent cell distention and malfunction.

Mucopolysaccharides are complex macromolecules composed of multiple repeating disaccharide units attached to a protein chain.

wise action of a series of lysosomal enzymes which separate the terminal carbohydrate units from the polysaccharide chain, remove the sulfate radicles from the carbohydrate units, and separate the polysaccharide chain from its attachment to the protein chain.

Deficient activity of one of the lysosomal enzymes results in only partial degradation of MPS and subsequent lysosomal storage of the fragments. Deficient activity of a specific enzyme usually results in

The mucopolysaccharides heparan sulfate and dermatan sulfate both contain iduronic acid residues which are normally removed from the polysaccharide chain by the action of α -L-iduronidase. Thus, lack of activity of this enzyme results in only partial degradation and the lysosomal storage of heparan sulfate and dermatan sulfate which occurs in the patients with Hurler Syndrome. This pattern of storage usually results in bone and visceral storage (dermatan sulfate) and

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TABLE 1
Mucopolysaccharide Storage Disorders

Type	Eponym	MPS Stored	Enzyme Defect	Inheritance
I-H	Hurler	Dermatan sulfate Heparan sulfate	α -L-Iduronidase	AR
I-S	Scheie	Dermatan sulfate Heparan sulfate	α -L-Iduronidase	AR
I-H/S	Hurler-Scheie	Dermatan sulfate Heparan sulfate	α -L-Iduronidase	AR
II	Hunter	Dermatan sulfate Heparan sulfate	L-Iduronosulfate sulfatase	XLR
III-A	Sanfilippo A	Heparan sulfate	Heparan sulfate sulfatase	AR
III-B	Sanfilippo B	Heparan sulfate	α -N-acetylglucosaminidase	AR
IV	Morquio	Keratan sulfate	N-acetylgalactosamine -6-sulfatase	AR
VI	Maroteaux-Lamy	Dermatan sulfate	N-acetylgalactosamine-4 -sulfatase (arylsulfatase B)	AR
VII		Dermatan sulfate Heparan sulfate Chondroitin sulfate	β -glucuronidase	AR

AR = autosomal recessive; XLR = X-linked recessive

mental retardation (heparan sulfate).

At present there are at least seven basic types of the MPS storage disorders which may be distinguished by clinical features and biochemical abnormalities (*Table 1*). There is great clinical variation both between types and within types. Specific lysosomal enzyme deficiencies, patterns of MPS storage and excretion, pattern of inheritance and clinical severity are useful in classification. As a group, the incidence is approximately one in 25,000 to one in 50,000. The Hurler Syndrome and Sanfilippo Syndrome are the most common forms.

The prototype of the group is the **Hurler Syndrome, Type I-H**, which has an estimated incidence of one in 50,000 to one in 100,000. These children appear normal at birth but gradually develop enough clinical manifestations so that the diagnosis may be suspected by one year of age. The earliest findings include persistent rhinorrhea along with umbilical and inguinal hernias. Further findings, which become

obvious between ages one and two years, include coarse facial features, corneal clouding, hepatosplenomegaly, short stature, joint stiffness, enlargement of the head with frontal prominence, flat nasal bridge, thick coarse hair, hirsutism, and hypertrophy of the alveolar ridge (*Figs. 1 and 2*).

Skeletal abnormalities, known as dysostosis multiplex, are unique and diagnostic for the group. Radiographs show a large, thick calvarium with a J-shaped sella turcica. The long bones are foreshortened, thickened and trabeculated. The ribs are often wider than the intercostal spaces. The metacarpals and phalanges are short with wide diaphyses. The distal radius and ulna have a V-shaped configuration. These findings are associated with a "claw-hand" appearance. The vertebral bodies are decreased in height, and anterior beaking may be seen in the thoracic and lumbar areas. Progression of the beaking leads to the kyphosis and gibbus formation of the lower back.

Developmentally, the children appear normal for the first year, but

then have a slow regression of all abilities. Cardiac and pulmonary involvement, a later feature, may result in congestive failure or obstructive lung disease after the age of three years. Death occurs by ages five to 10 years from cardiac failure, intercurrent illness or central nervous system involvement.

The **Scheie Syndrome, Type I-S** (originally Type V), is a less common, milder variant of the Hurler Syndrome without mental retardation but with significant corneal, aortic valve and joint involvement. Most cases are diagnosed between ages five and 10 years. There may be a near-normal life span, but this depends upon the severity of cardiac involvement.

The **Hurler-Scheie Syndrome, Type I-H/S**, is a rare disorder which presents with findings intermediate between the Hurler and Scheie Syndromes. The Hurler and Scheie Syndromes, both associated with deficient activity of α -L-iduronidase, are thought to be allelic mutations at the same enzyme locus. Children with Type I-H/S are thought to represent a state of genetic compound heterozygosity for both the Hurler and Scheie Syndromes. One parent is assumed to be a Hurler heterozygote and the other a Scheie heterozygote.

The **Hunter Syndrome, Type II**, distinguished from the Hurler Syndrome by the lack of corneal clouding and X-linked recessive pattern of inheritance, occurs in both a severe and mild form. The severe form of Hunter Syndrome, which is usually diagnosed by two years of age, parallels the clinical course of Hurler Syndrome except that it is somewhat milder in severity. Affected boys may live to their late teens. Conductive and neurosensory deafness and subcutaneous nodules of MPS infiltration are frequently seen. The milder form of Hunter Syndrome, which is very

rare, is associated with a life expectancy into the sixties and normal development.

The **Sanfilippo Syndrome, Type III**, is a common type not always clinically recognized. The physical features of the classical Hurler Syndrome are minimal, and urine mucopolysaccharide excretion may not be large enough to produce positive screening tests. The hallmark of this syndrome is mental regression which is usually evident by age four to five years. Behavioral problems also occur at this age. Corneal clouding and cardiac involvement do not occur. Minimal hepatosplenomegaly and coarsening of facial features may be present. Joint stiffness, especially in the major joints, may be mild. Radiographically, the dysostosis multiplex pattern is usually present but in a very mild form. The patients usually become bedridden by late teenage, although survival into the twenties and thirties has been reported. The two subtypes, A and B, of Sanfilippo Syndrome are clinically indistinguishable. The separation is made on the basis of the specific enzyme defect found in the individual cases.

The **Morquio Syndrome, Type IV**, is also uniquely distinct from the Hurler Syndrome due to the predominance of skeletal involvement. By age two, a dwarfing syndrome with flat feet, prominent joints, dorsal kyphosis, awkward gait and chest deformities is usually noted. At four to six years, a characteristic facies with broad mouth, prominent maxilla, short nose and widely spaced teeth is present. Corneal clouding, present early with slit lamp examination, may not be grossly apparent until eight to 10 years of age. The dwarfism, which is striking, results from growth failure, platyspondyly of vertebral bodies with kyphoscoliosis, and flexion contractures at the hips and knees. Aortic regurgitation and deafness



FIGURES 1 and 2. Four-year-old boy with Hurler Syndrome

occur frequently. Death, which occurs between the twenties and fifties, is usually from pulmonary complications secondary to the restricted mobility of the thoracic cage or from cervical spine subluxation. Radiographic findings are usually distinct but must be distinguished from the spondylo-epiphyseal dysplasias.

The **Maroteaux-Lamy Syndrome, Type VI**, presents in severe, intermediate, and mild forms. The severe form is clinically very similar to the Hurler Syndrome except for the absence of mental retardation until the late stages of the disorder and possible survival into the second decade. This form of the disorder becomes clinically appar-

ent by age two years with coarsening of facial features, visceral involvement, corneal clouding, and dysostosis multiplex. The mild form of this disorder has a clinical course and survival similar to Scheie Syndrome, while the intermediate form resembles the Hurler-Scheie Syndrome.

Type VII mucopolysaccharidosis, which has been reported in only two patients, is clinically and radiographically indistinguishable from Hurler Syndrome. It may be documented by absence of β -glucuronidase activity.

In addition to the seven basic types, occasional patients cannot be classified on the basis of clinical manifestations or the biochemical

defects presently recognized. Undoubtedly, biochemical investigation of such patients will lead to the identification of further types in the future.

Evaluation of the patient suspected of having a mucopolysaccharidosis should include the following studies:

1. Family history. The family history is usually negative for autosomal recessive disorders but may be helpful in the Hunter Syndrome, which is inherited as an X-linked recessive trait.

2. Radiographs of long bones, chest, spine, and skull for dysostosis multiplex.

3. Urine spot testing for MPS. The spot tests may be negative in the types with mild involvement and in the Morquio Syndrome.

4. Twenty-four-hour urine for

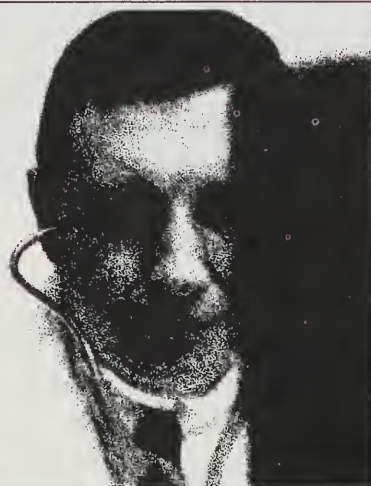
quantitative mucopolysaccharide excretion and pattern.

5. Documentation of deficient activity of a specific lysosomal enzyme. The last two tests are very sophisticated and are usually available only in specialized laboratories. Enzymatic studies may now be done on serum or leukocytes for most of the disorders. Occasionally, a skin biopsy for cultured fibroblasts for enzymatic assays is required. It is important that the exact biochemical defect be established to insure an accurate prognosis and for appropriate genetic counseling. Parents with an affected child have a 25 per cent recurrence risk for an affected child with each subsequent pregnancy for all of these disorders. Prenatal diagnosis is available for all the disorders, and carrier detection is available for some.

At present only symptomatic and supportive therapy is available. Attempts at enzyme replacement therapy have been unsuccessful.

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avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Objective Measurement of Hyperactivity in Children

HYPERACTIVITY is among the most controversial issues in the fields of pediatrics and education. The basic cause for disagreement is the lack of objective criteria for making the diagnosis and, once made, for evaluating the effectiveness of therapy. The subject has been made even more controversial by the recent indictment of certain food additives as a cause for the condition.¹ This theory has been both supported² and attacked.³

Two observations, sinus arrhythmia and activity on a force platform, were evaluated in this study.⁴ In combination they offer an objective measure of hyperactivity in children.

Since the hyperactivity syndrome occurs most frequently in boys, 15 hyperactive and 15 non-hyperactive pre-adolescent males ranging in age from 7-12 were studied. The groups were evenly matched in all characteristics except for those related to hyperactivity. Since this selection process was of paramount impor-

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tance to the study, its details will be described. Rahdert⁵ was able to discriminate between hyperactive and non-hyperactive children by the use of psychological tests which verified that a child was hyperactive if he exhibited at least eight of the following symptoms (based upon an extension of Clement's work, 1966):⁶

1. Restlessness—fidgety
2. Short attention span
3. Unpredictable behavior—emotional lability
4. Impulsive—poor impulse control
5. Peer group relationships difficult or poor
6. Clumsiness or awkwardness
7. Problems with memory
8. Temper outbursts and aggressive behavior
9. Underachievement in school work—learning problems
10. Distractible—poor concentration
11. Socially inept behavior
12. Fluctuating performance

The pediatrician and/or clinical psychologist used these criteria when making the initial referral. Both parents subsequently completed carefully worded questionnaires which were validated against the referral criteria. The results of this comparison will be discussed

ABSTRACT

This study presents an objective method for quantifying hyperactivity in children. Fifteen hyperactive and 15 non-hyperactive pre-adolescent males were evaluated. During the administration of an intelligence test, each subject's movement was monitored by a force platform while the mental stress was assessed by measurement of sinus arrhythmia. In combination, these objective measurements correctly classified 77% of all subjects.

later. Teachers also were asked to complete questionnaires but too small a number were returned to allow the responses to be used. Once selected, these children, with the informed consent of their parents, were subjected to the following procedures:

1. Sinus arrhythmia monitoring using cardiac telemetry.
2. Movement monitoring using the force platform.

Physicians are well acquainted with *sinus arrhythmia* as a physiological phenomenon but may not be aware of the fact that it has been shown to vary with the perceptual load. Perceptual load is defined as the total of the attention components necessary to perform primary and secondary tasks. As a perceptual load increases, sinus arrhythmia decreases 7,8,9,10,11. The *force platform* is unfamiliar to most individuals. It was originally introduced by Lauri¹² and subsequently modified by Barany.^{13,14} It consists of an extremely sensitive yet rugged instrumented platform which measures and records movement in three directions: frontal, lateral and vertical. Such movement can then be quantified.

The testing procedure was performed in the following manner: First, a baseline sinus arrhythmia was established by a five-minute resting recording of the subject's electrocardiographic activity as transmitted from two chest electrodes. Then, the subject moved to the force platform where, after a

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Study was supported by PHS Grant #MH 289101. Principal investigator: Gavriel Salvendy, M.D.

Reprints: Robert E. Hannemann, M.D., School of Chemical Engineering, Purdue University, W. Lafayette, Ind. 47907.

rest period, the Wide Range Achievement Test (WRAT) and the Wechsler Intelligence Scale for Children-Revised (WISC-R) were administered. Four electrocardiograph recordings were taken during and following the tests. A fifth arrhythmia "score" was obtained by computing the ratio of the initial resting score with the score obtained during testing. Force platform responses were recorded during the entire testing procedure.

Results

To evaluate the validity of the two objective measures of hyperactivity (force platform and sinus arrhythmia) it was necessary to compare them separately and in combination with the subjective referral criteria and/or the parents' evaluation. The latter could be quantified since each parent completed a questionnaire designed so comparisons could be made. The pediatricians and clinical psychologists did not complete a similar questionnaire, but classified the subjects as hyperactive or normal on the basis of other previously described criteria. On specific correlatable points, there was statistical agreement between the two parents (0.92; $p > 0.001$) but not between the parents and the referral criteria.

When the force platform scores were compared with the subjective criteria, they were found to correctly identify 67% of the hyperactive children as far as the referral criteria were concerned and 73% when the parents' questionnaire was taken into consideration.

The sinus arrhythmia scores were non-significant when compared with the referral criteria or the parents' questionnaires either individually or as a group. When combined with the force platform scores, they did not affect parent questionnaire identification accuracy (73%) but did increase the referral criteria

identification of hyperactivity from 67 to 87%.

Comments

The results of this study, in addition to validating the use of the described objective measures of hyperactivity, also illustrate the extreme complexity of making the diagnosis in the first place. Obviously, the initial referral categorization is based upon subjective criteria. These criteria, although familiar and frequently used, need future verification and refinement.

Observation of the subjects and analysis of the data with respect to time of such observation verified some recognized patterns of behavior in the hyperactive child. For instance, more powerful multiple correlations and discriminant functions are obtained when the data for the entire one-hour period are used rather than for the initial eight-minute test period. The hyperactive subject apparently can restrict his normal behavioral activities for a short time until he becomes familiar in the surroundings or becomes fatigued.

Sinus arrhythmia scores alone are not significant in any multiple correlation or discriminant function. This finding is noteworthy in light of other studies which indicated that sinus arrhythmia is associated with, and is a reflection of, the perceptual load associated with the task performance. If there were some non-attending behavior during the performance of the task, as claimed to be a symptom of hyperactivity by some investigators,¹⁵ then one of the following three phenomena may be present:

- The subject performs the main task with the necessary attention and also deviates attention to a secondary task. If this is the case, then sinus arrhythmia should be lower than if the secondary task were not present.

- The subject provides the necessary attention for the main task and carries out the secondary task unconsciously. This may result in no increase in the overall perceptual load imposed on the subject and, thus, no change should occur in the sinus arrhythmia score due to the unconscious performance of the secondary task.

- The subject does not fully concentrate on the main task, deviating a portion of his attention from the main task to the secondary task in such a way that the sum of the perceptual load due to the main task and the perceptual load due to the secondary task equals the perceptual load when the main task is carried out at the necessary concentration. In that case, no change would be observed in sinus arrhythmia from what would be present if the secondary task did not exist.

Results of the present study give support to either of the latter two notions because no significant differences in the means of any sinus arrhythmia scores were present between the hyperactive and the non-hyperactive groups and because sinus arrhythmia scores alone were not significant in any of the multiple correlations or discriminant functions.

This study supports the hypothesis that by using the scores of several subjective evaluations, and then objectively measuring movement and sinus arrhythmia, valid discrimination between a group of children who are labeled hyperactive and a group not so labeled can be obtained. It also demonstrates the feasibility of using objective measures to quantify hyperactivity in children. The techniques, however, cannot be immediately utilized without intermediate development as follows:

1. Cross-validate the results of the present study.

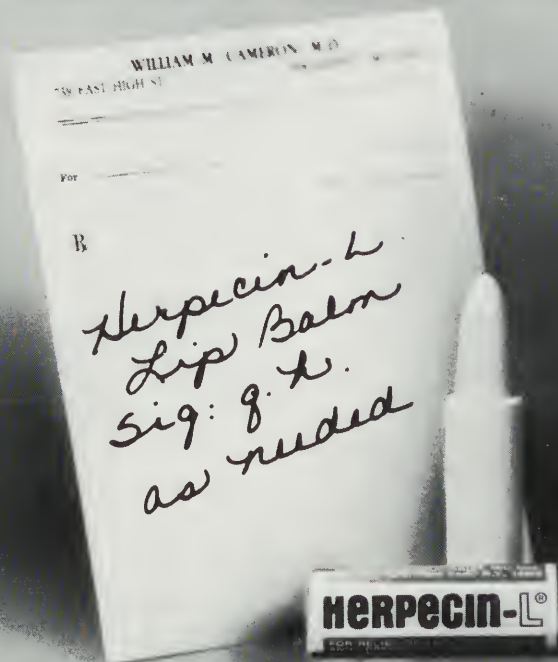
2. Decide upon a criterion to be used (such as the referral checklist, parent questionnaire, or teacher questionnaire) against which norms can be developed.

3. Use the objective measures (derived from the cross-validation) of force platform and sinus arrhythmia scores to study a stratified random sample of children to develop norms based on the criterion identified in item 2 above. Separate norms and validation should be provided for subgroups such as age, race, and sex.

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Complications of Therapeutic Radiation

SINCE ONE OF FOUR people will have cancer often treated by ionizing radiation, a knowledge of radiation toxicity will help the practicing physician manage side ef-

ficial orthovoltage x-rays, and tangential supervoltage x-rays. Maximum dose absorption occurs where the beam glances the skin folds tangentially, i.e., neck, axilla, per-

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HOWARD W. KAYS, M.D.
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fects. Radiation damage is determined by total dose, dose rate (rads/day), energy, volume and chemotherapy. Radiosensitivity depends on oxygenation (vascularity), lack of cellular differentiation, and rate of mitotic proliferation.¹ This article outlines the side effects to expect, when to rest from therapy, and what supportive treatment to give.

Skin

With skin sparing megavoltage for deep therapy, skin reaction is no longer a reliable guide to deep tissue effects. Radiation dermatitis still occurs from electrons, super-

ineum, and gluteal folds. The skin is tender with movement or irritation. Radiation dermatitis is not painful at rest. Concomitant chemotherapy exacerbates skin reaction at lower radiation doses. Erythema, pigmentation, and dry desquamation are reversible. Avoid irritation by clothing and salty perspiration. Prevent infection with Ivory® soap or dilute hydrogen peroxide washing.

Topical recommendations include moisturizing A&D Cream® or baby oil for dry desquamation. Expensive, high potency steroid ointments are contraindicated.² The intertriginous areas should be kept dry, cool and clean by exposure to air, especially if the lesion is wet. Moist desquamation with oozing of serum is an indication to rest from therapy. After moist desquamation expect pigment changes, fibrosis, impaired wound healing, anhidrosis and epilation. These areas must be protected from sun, trauma, chronic pressure and infection.³

citric acid), e.g., milk supplements, also help to anesthetize tender mucous membranes; they also provide calories. Xerostomia from salivary radiation makes chewing dry food impossible. Food must be lubricated with artificial saliva, sauces, gravy, milk, butter, jelly, etc. Xerostomia accelerates dental caries, abscesses, and painful mandibular necrosis. Prophylactic fluoride application and dental brushing must be emphasized. Teeth beyond salvage should be extracted at least 10 days before oral radiation. Otherwise, mandibular osteomyelitis is excessive since poor dentition and dental extractions are an avenue for infection. The patient should be told to stop alcohol and tobacco. Dental and dietetic consultation must not be neglected.⁴

Esophagus

Malnutrition occurs from dysphagia or obstruction by esophageal carcinoma. Patients should be told that improved swallowing occurs by the end of therapy and that radiation dysphagia subsides two weeks

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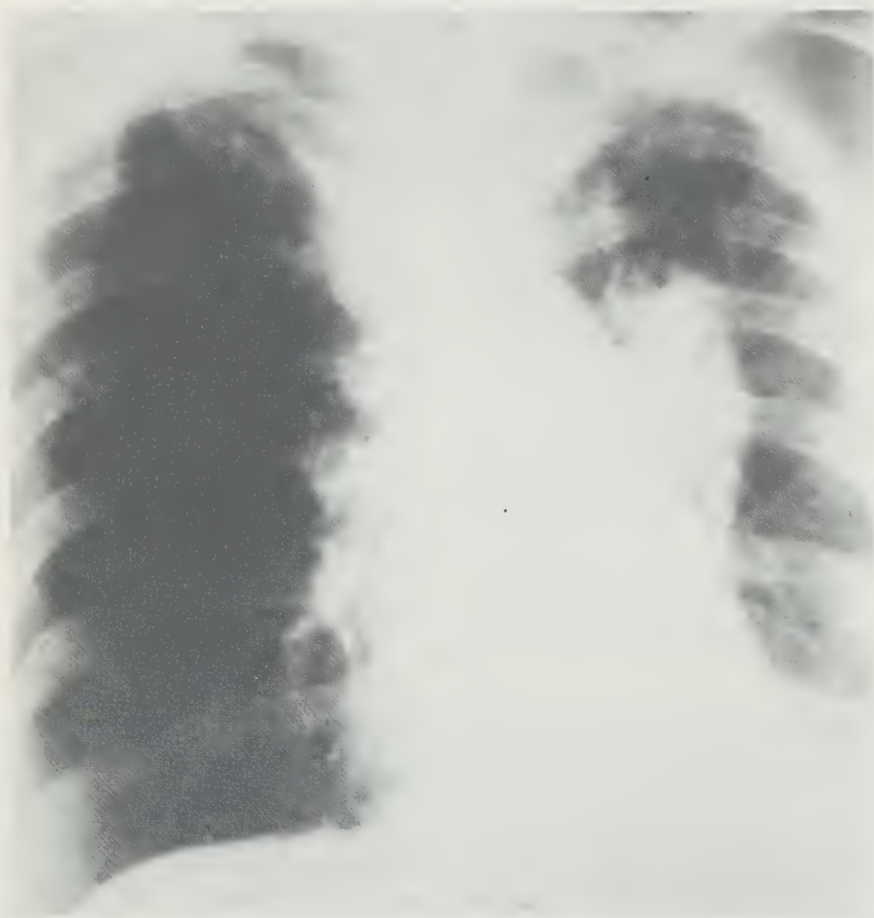


FIGURE 1—Radiation fibrosis of the left hilum following 4,500 rads and chemotherapy for oat cell carcinoma.

after treatment. As with oropharyngitis, ice cold liquids and Xylocaine Viscous® relieve radiation dysphagia, while liquid antacids after meals and prior to recumbency reduce esophagitis.⁵

Obstruction requires resection, celestin tube, or gastrostomy before radiation. Tumor replacing the entire esophageal wall increases the risk of T E fistula or perforation with mediastinitis, especially after vomiting or instrumentation. Sudden severe pain, tachycardia, fever, or shock are signs of life-threatening esophageal perforation.

GI Tract

Radiation to the GI tract causes profound anorexia. An antiemetic and quiet bed rest is helpful for

vomiting after excluding ileus or obstruction. Gastric radiation increases ulceration, hemorrhage and perforation. Anorexia causes lack of food to buffer stomach acid, so antacids and nutrition supplements are recommended. Tagamet®, prescribed at the first mention of ulcer pain, may prevent hemorrhage or perforation.

Mild diarrhea and cramping is managed with a low residue diet and Lomotil® or paregoric. Radiation tolerance of intestines decreases as volume or dose increases. Smaller volumes tolerate higher doses. Intestinal loops receive a higher dose when tethered in the treatment field by surgical adhesions, inflammatory disease, or pelvic infection, than when free

movement of loops is allowed. Severe diarrhea, especially if bloody, or tenesmus indicates rest from radiation to prevent later stenosis, ulceration or perforation. Severe pain, silent rigid abdomen, and radiographic free gas indicate a surgical emergency.

Chronic small bowel damage resembles regional enteritis or sprue and includes intermittent diarrhea, constipation, colic, vomiting and wasting. Repeated surgeries may be needed for obstruction.⁶

Thyroid

Primary hypothyroidism is reported in 66% of Hodgkins's disease patients following neck radiation.⁷ The expanded iodine pool following lymphangiogram increases thyroid sensitivity to radiation. Radiation-related hypothyroidism also may be common after higher doses for other head and neck tumors. Some advocate semi-annual TSH levels, but prevention of sneaky myxedema with dessicated thyroid is less expensive and safe. Exogenous suppression of elevated TSH from radiation-related hypothyroidism may preclude radiation-induced thyroid carcinoma.⁸

Pericardium

Neoplastic pericardial invasion increases acute pericarditis during anterior mediastinal radiation. Transient friction rubs may not be heard unless auscultation is done daily. Pain referred to the left shoulder and relieved by leaning forward are clues.⁹ Differential diagnoses include infarction and tuberculous pericarditis, mandating TB therapy.

Prednisone is indicated if pain is not relieved promptly by cessation of radiation, bed rest, and non-steroidal anti-inflammatory agents, e.g., aspirin, Clinoril® or Naprosyn®. The latter two are not approved for pericarditis but offer better gastric tolerance and less fre-

quent b.i.d. dosage. (Thrombocytopenia contraindicates aspirin.)

Twenty-eight per cent of patients develop pericardial effusion months after pericardial doses of 5,300 rads.¹⁰ This complication is more likely if all radiation is given from an anterior field rather than half from a posterior field. Most effusions are self-limited and half are asymptomatic. The enlarging cardiac silhouette is confirmed by echocardiography. Inspiratory drop in systolic pressure greater than 10mm (pulsus paradoxus) and other signs of heart failure necessitate pericardiocentesis or pericardiectomy.

Mediastinal radiation may increase congestive cardiomyopathy from Adriamycin®.

Lung

Asymptomatic pulmonary fibrosis is seen on chest x-ray eight weeks after 4,000 rads. Cough, chest tightness and profound dyspnea may occur if large volumes in emphysematous smokers are irradiated.¹¹ However, apical pneumonitis is seldom symptomatic. Concomitant chemotherapy and steroid withdrawal exacerbate pneumonitis at lower doses. Prednisone 60 mg daily tapered over several weeks gives relief and prevents disabling fibrosis. Since the leading cause of death from steroids is sudden overwhelming infection, TB, especially apical TB, must be excluded. Lymphangitic metastases are most prominent in the lung bases and rapidly progressive with symptoms out of proportion to radiographic appearance.¹² Infiltrates outside the radiation portals are never radiation pneumonitis.

Genitourinary Tract

Hematuria, dysuria, frequency and urgency are signs of radiation cystitis. Concurrent bacterial cystitis requires antibiotics, urinary analgesics, and rest from bladder

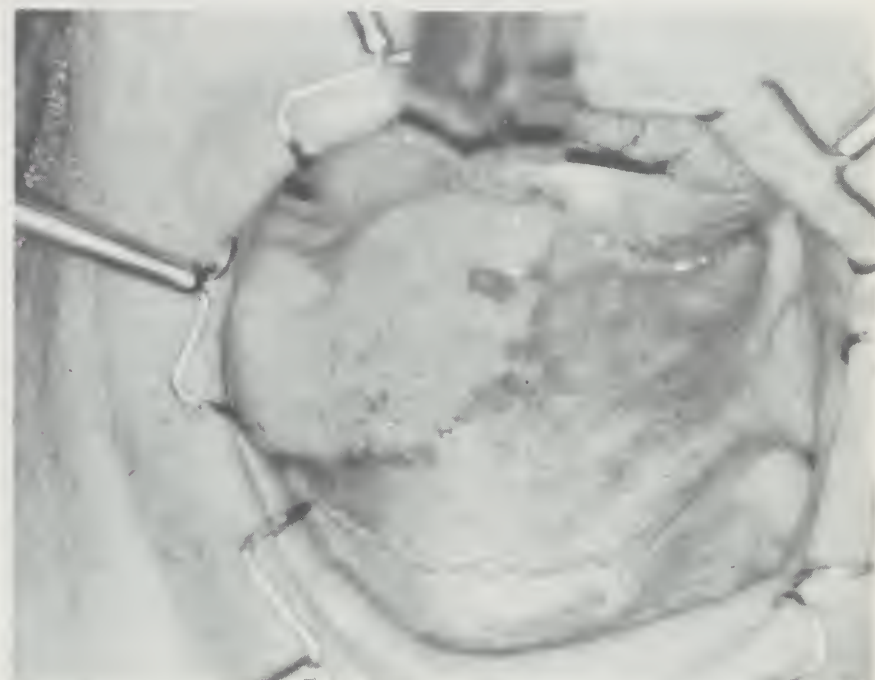


FIGURE 2—Ipsilateral mucositis of oral cavity demonstrating limited penetration of the 9mev electron beam for carcinoma tonsil.

radiation. Bladder sequelae are worse following transurethral fulguration, tumor necrosis or concomitant Cytosan®. Nocturia is common from reduced bladder capacity. After high doses (7,500 rads) and severe cystitis, an occasional, small, fibrotic, contracted bladder may require ureteroileostomy.

Shielding the highly vascular kidney from doses higher than 2,300 rads prevents nephritis. Uremia, edema, vomiting, hypertension and headache may require dialysis. Malignant hypertension uncontrolled by antihypertensives needs nephrectomy to spare the uninvolved kidney.¹³

Teletherapy does not cause ureteral stricture or obstruction. Post-radiation hydronephrosis is a consequence of recurrent cancer until proven otherwise.³

Vaginal radiation requires instruction in the daily use of a vaginal dilator or appropriately sized wax candle, otherwise fibrosis will

prevent subsequent examination. When carcinoma replaces the entire vaginal wall, vesical or rectovaginal fistulas may occur, especially following high dose radionuclide implant brachytherapy. This complication is more likely with advanced tumors in hypertensive diabetics with pre-existing vascular disease.

Following radical radiation (7,000 rads) for prostate carcinoma, 25% of sexually active patients report decline of sexual function or impotence.¹⁴

CNS

From clinical doses there is no acute reaction of the nervous system other than self-limited drowsiness from brain radiation. The low incidence of brain necrosis following high doses (7,500 rads) is higher in tissues invaded by tumor. Symptoms depend on location and mimic abscess and tumor. Following pituitary-hypothalamic radiation, children, especially, must be

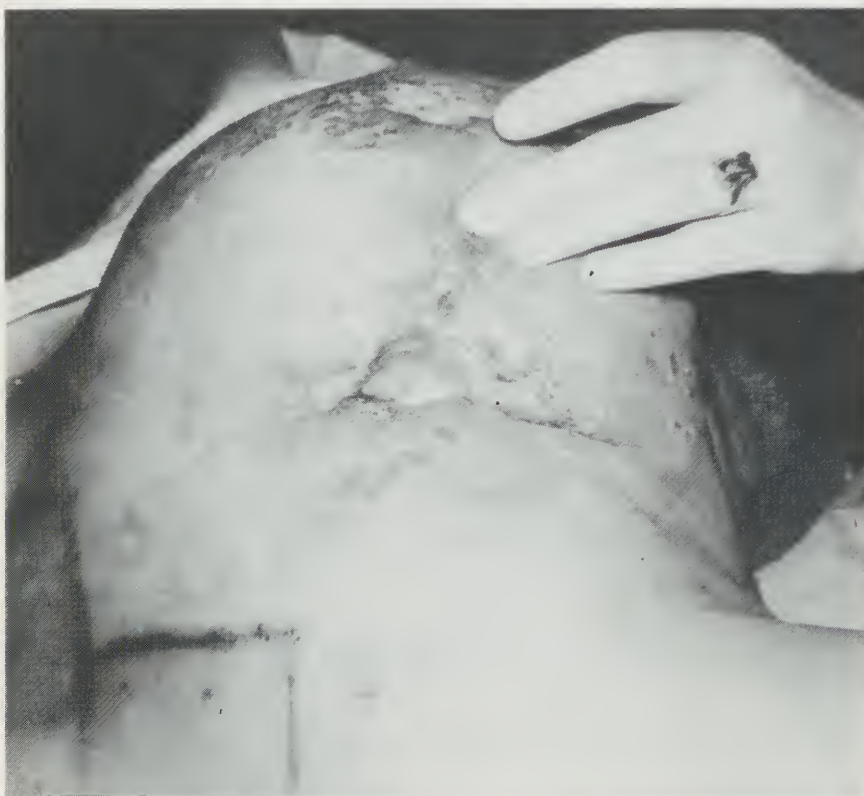


FIGURE 3—Erythema and dry desquamation following 5,000 rads for breast carcinoma.

watched for hypopituitarism.

Traction on the irradiated spinal cord by forward neck flexion shoots "electrical" paresthesias along dermatomes. The temporary demyelination of Lhermitte's Syndrome is self-limited (weeks) and leaves no sequelae. Doses above 5,000 rads (200 rads/day) may result in sensory loss, motor weakness or paraplegia. Myelography may be necessary to exclude a cord-compressing tumor, a neurosurgical emergency. Rarely, toxic myelopathy from breast or lung cancer may occur.¹⁵

Bone

Irradiation of growing bone causes epiphyseal destruction, hypoplasia and shortening. Epiphyses and metaphyses are most sensitive and, the younger the child, the higher the dose the greater is the growth retardation. Parents

should be warned that the child needs to be followed by an orthopedic surgeon. Radiation-induced ilial and rib hypoplasias and vertebral scoliosis usually are mild, but radiation to weight-bearing hips and knees may cause disabling necrosis, dislocation, varus or valgus deformities, and premature degenerative joint disease.¹⁶

Marrow

Ionizing radiation causes pancytopenia if large volumes of bone marrow are irradiated. Sixty per cent of the marrow is included by total nodal mantle and inverted Y radiation fields for lymphoma. The myelosuppression is not symptomatic unless chemotherapy or neoplastic marrow invasion already has caused anemia, leukopenia or thrombocytopenia. Then a weekly CBC is needed. Since aspirin causes gastric bleeding and inhibits platelet

aggregation, it is best avoided in cancer patients. The irradiated bone marrow is unable to incorporate iron into new erythrocytes, so iron supplements are not helpful unless there is bleeding. An abundant iron supply, erythrocyte transfusion, is needed early when the hemoglobin is less than 10 because of impaired marrow reserve and hemorrhagic tendency of thrombocytopenia and decreased clotting factors from malnutrition.

Nutrition

Bedtime and after-meal nutrition supplements and vitamins help the most neglected aspect of patient care—malnutrition. Mixed with milk, Sustacal® or Meritene®, powder from 4 lb. cans is cheaper but has lactose and calcium. For patients with hypercalcemia or lactase deficiency (70% of Negroes), Precision®, Ensure®, and Isocal® are lactose free and lower in calcium. Deficiencies of bile salts or pancreatic lipase (pancreatic biliary carcinoma or cystic fibrosis) indicate medium chain triglyceride diets, Isocal® or Ensure Osmolite®. Hy-

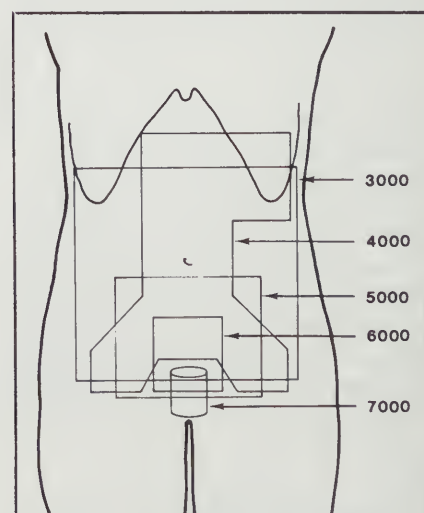


FIGURE 4—Diagram of "maximum" dose as volume increases. Whole abdomen 3,000 rads, inverted Y 4,000, total pelvis 5,000, small pelvis 6,000, rotational prostate 7,000.⁶

perosmolar diarrhea, dumping, and vomiting may occur from concentrated Ensure Plus®, Vivonex HN®, Precision HN® and Flexical® if not diluted initially or sipped slowly. Low residue, elemental amino acid diets, Flexical or Vivonex are necessary for limited protein assimilation, e.g., intestinal bypass, sprue or regional enteritis. Vivonex and Ensure Flavor Pacs® greatly aid palatability. Cachexia should be prevented by tube feeding, if necessary, and treated with hyperalimentation when survival is possible.¹⁷

Summary

Unfortunately, there is no specific therapy for radiation toxicity, other than rest from treatment and supportive therapy. The family physician with his close patient rapport

and broad knowledge of general medicine is best equipped to manage the complications of radiotherapy. Until proven otherwise, any new symptom is considered caused by the cancer or the therapy thereof.

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Surgical Management of Thoracoabdominal and Suprarenal Aneurysms

ANEURYSMS ARISING from the segment of aorta which contains the renal, superior mesenteric, and celiac arteries are infrequently encountered. These aneurysms may be thoracoabdominal, or may be suprarenal and confined to the infradiaphragmatic portion of the aorta.

The natural history of these aneurysms is not well documented, but is presumed to be the same as other abdominal aortic aneurysms. Surgical management usually has been reserved for those patients with clear-cut indications, e.g., severe pain, signs of expansion, or rupture. In the past, difficulties with surgical exposure, preservation of visceral and spinal cord integrity, multiple time consuming vascular anastomoses and control of both intraoperative and postoperative hemorrhage have contributed to a high mortality and morbidity.

This presentation includes four patients with suprarenal aneurysms surgically treated by the Crawford technique with modifications. There is a significant improvement in operative mortality reported by Crawford^{4,5} and experienced by us and others with smaller series.⁶ This more simplified technique with resultant decreased surgical mortality should lead to re-evaluation of the operative indications.

Case Reports

A 71-year-old white woman was admitted with increasing, nearly constant, chest pain of four days duration. There also was abdominal

pain, thought to be unrelated to the chest pain. Diagnostic evaluation for myocardial infarction was nega-

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tive. A chest x-ray showed calcification in an aortic aneurysm in the thoracic area, possibly extending into the abdomen.

An aortogram (*Figure 1*) revealed the aneurysm to extend from the descending thoracic aorta through most of the abdominal aor-

ta, including the visceral and renal arteries. The aneurysm was thought to be 6 to 7 cm. diameter in two areas.

The patient was at increased risk for surgery with a history of three previous myocardial infarctions, congestive heart failure, C.O.P.D., hypertension, and a mitral insufficiency murmur. Cardiac studies included an ejection fraction of 46%, with no focal wall abnormality and no evidence of an acute myocardial infarction. Echocardiograms suggested mitral valve degenerative changes. Pulmonary function studies indicated moderately severe impairment, predominantly ob-



FIGURE 1

From the Department of Medical Research, Graduate Medical Center, Methodist Hospital of Indiana, Inc., 1604 N. Capitol Ave., Indianapolis, Ind. 46206.

structive. Preoperative laboratory values revealed a creatinine clearance of 147, serum creatinine of 1.3, BUN—19, SGOT—57, LDH—160, and CPK—58.

At the time of surgery the aneurysm extended from the mid-thoracic aorta to just proximal to the bifurcation of the abdominal aorta. A thoracoabdominal approach was used, extending through the diaphragm to the aortic hiatus. A woven dacron graft was anastomosed to the proximal aorta. Buttons of graft were then cut out for the celiac, superior mesenteric and left and right renal arteries, and the origins of these vessels in the aorta were anastomosed to the graft. The distal graft was anastomosed to the infrarenal aorta. A distal aorta to left external iliac bypass graft was then placed due to occlusion of the left iliac artery. The total visceral and renal ischemic time was 60 minutes. The estimated blood-loss was 1500 cc.

Postoperatively, the patient did well, considering her poor medical condition. The only complication was moderate congestive heart failure, which was treated successfully. Her urine output remained good in spite of an increase in the creatinine to 3.0. The BUN reached a maximum of 45. The liver enzymes were elevated with a CPK of 910. The LDH was greater than 600, SGOT was 110 and total bilirubin, 1.8. These measurements improved and the creatinine was down to 2.0 by the seventh postoperative day. The patient was discharged on the 10th postoperative day.

* * *

A 56-year-old black man was admitted initially for cardiac catheterization, with a tentative diagnosis of postinfarction angina. Catheterization showed an old inferior infarct, a totally occluded right coronary artery, and a 30% lesion of the circumflex artery. In addition, it revealed a thoracoabdominal aneu-



FIGURE 2

rysm, thought to be responsible for the patient's pain.

An aortogram showed an extensive aneurysm (*Figure 2*) beginning distal to the aortic arch and extending down to the level of the renal arteries. Further preoperative evaluation included pulmonary function studies which showed moderate obstructive disease, a creatinine clearance of 80cc per minute, BUN—22, and a serum creatinine of 1.3. The LDH, CPK, SGOT were all normal and the alkaline phosphatase was slightly elevated at 130.

A thoracoabdominal incision was made and the aneurysm was approximately 8 cm. in greatest dimension at the level of the celiac

and superior mesenteric arteries, tapering to normal size at the level of the renal arteries.

An end-to-end anastomosis with a dacron graft was made to the thoracic aorta proximally, and buttons of graft were removed for anastomosis to the celiac and superior mesenteric arteries. The distal anastomosis incorporated both renal arteries at their origins. The ischemic time to the renal and mesenteric arteries was 60 minutes. A total of three units of whole blood and three units of autotransfused blood were given during the procedure.

Postoperatively, the patient developed sudden ventricular fibrillation which required an electrical



FIGURE 3

cardioversion. The potassium at that time was less than 3 MEQ, which may have been contributory. No further dangerous arrhythmias occurred. The liver functions, postoperatively, became abnormal with a total bilirubin of 9.1 mg%, alkaline phosphatase of 120, CPK—130, LDH—44, and an SGOT of 170. These gradually improved over succeeding days without specific treatment. Serum creatinine readings reached a high of 2.6 before returning to preoperative levels. The patient continued to improve and was discharged on the 16th postoperative day.

* * *

A 56-year-old white man was admitted with a known abdominal aneurysm of two years duration. The aneurysm originally presented as a pulsating upper abdominal mass at

the time of a work-up prior to bilateral herniorrhaphies. Further evaluation revealed severe coronary artery disease requiring quadruple coronary artery bypass grafts. Four weeks post bypass the patient was taken to surgery for resection of the large aneurysm.

An aortogram revealed an extensive aneurysm (*Figure 3*) beginning at the level of the right renal artery and extending to the bifurcation. Further preoperative studies showed a resting ejection fraction of 85%, which dropped to 71% with exercise. Renal function was good with a creatinine clearance of 100ml per hour, serum creatinine of .9 and a BUN of 13. Liver function studies showed a normal bilirubin, alkaline phosphatase, CPK, and LDH, with an elevated SGOT of 300.

The aneurysm was approached initially through a midline incision and exploration revealed the aneurysm to be 8-10 cm. in diameter, with the greatest dimension just proximal to the aortic bifurcation. The iliac and superior mesenteric arteries were not involved; however, the right and left renal arteries were included in the proximal aneurysm. During the procedure a splenic capsular tear occurred due to difficulty in mobilizing the spleen and a splenectomy was performed. The incision was then extended into the thorax to gain proper exposure of the aorta just below the diaphragm where it was clamped. The aneurysm was then entered and the lumbar artery orifices identified and individually suture ligated. A dacron graft was sutured to the proximal aorta with part of the anastomosis including the orifice of the right renal artery, thereby restoring renal flow on removal of the proximal clamp. A button-hole was made in the graft for the left renal artery and it was sutured inside the aorta without removing the artery from the wall of the aneurysm. The total renal ischemic time was 24 minutes. The entire anastomosis was completed in 40 minutes.

Four units of whole blood and one unit of autotransfused blood were given during the procedure. The patient did well postoperatively, the only complication being a partially loculated left pleural effusion which resolved with medical treatment. Renal function remained normal with a maximum serum creatinine of 1.2 and a maximum BUN of 12. Liver function studies were unchanged and the patient was discharged on the eighth postoperative day.

* * *

A 58-year-old black man was admitted with a chief complaint of hemoptysis. He also had severe back



FIGURE 4



FIGURE 5

and pelvic pain at this time. On physical examination, the patient had a large pulsatile upper abdominal mass. Plain films of the abdomen showed calcification consistent with an aortic aneurysm. Ultrasound examination confirmed the presence of a large aneurysm.

An aortogram (Figure 4) demonstrated an aneurysm extending from the diaphragm to the distal abdominal aorta. It involved the celiac axis, superior mesenteric and both renal arteries. It also demonstrated an irregularity, posteriolaterally, consistent with either pseudoaneurysm or leaking aneurysm. Clinical evidence supported the former as a more likely cause. Further preoperative evaluation revealed a creatinine clearance of 55, BUN—22, serum creatinine—1.6, CPK—50, LDH—260, SGOT—40, and an alkaline phosphatase of 125.

Surgery was performed using a thoracoabdominal incision. The an-

eurysm was resected with reimplantation of the celiac, superior mesenteric, and both renal arteries directly into the side wall of the dacron graft. The renal ischemic time was 90 minutes and the replaced blood loss was 7,000cc.

Postoperatively, the patient became dependent on mechanical ventilation; tracheostomy was performed. He was eventually found to be markedly hypothyroid and appropriate therapy resulted in increased strength of respiratory muscles and subsequent weaning from the ventilator.

Liver enzymes showed a transient rise of the bilirubin to 5.0 and the alkaline phosphatase to 160 which eventually returned to normal. His postoperative creatinine clearance was 20ml per minute but the serum creatinine did not rise above 2.6ml%. He was discharged on the 41st postoperative day.

The patient was readmitted a year

later for evaluation of claudication, and the postoperative aortogram (Figure 5) substantiated occlusion. The patient subsequently underwent left femoral bypass and did well postoperatively.

Discussion

Ethredge reported the first successful resection of a suprarenal aneurysm in 1954.¹ His technique was used and improved on by DeBakey² and Shumacker³ and is still used today. In 1965 DeBakey and Crawford reported the first large series of 42 cases. Crawford then devised a new technique and reported his experience in 1973⁴ with a follow-up report in 1979⁵ on a total of 99 patients. The two basic techniques used today are patterned after Ethredge and Crawford.

Ethredge's Technique: After appropriate monitoring devices are established, a thoracoabdominal

incision is made through the 7th intercostal space. A knitted Dacron graft is anastomosed endside to the abdominal aorta below the aneurysm. This graft is then anastomosed end-side to the descending thoracic aorta, proximal to the aneurysm, using partial excluding clamp. Individual 8mm side arm grafts (Figure 6) are used to connect the major graft with the celiac, superior mesenteric, and renal arteries. The aneurysm is then excluded by oversewing the proximal and distal ends of the aneurysm.

The major advantage of this procedure is that the visceral artery ischemia time is controlled to 10-30 minutes each. This has resulted in no permanent ischemic damage to the kidney, liver or G.I. tract in the 27 survivors in the 42-patient series. However, it is difficult to appreciate the true incidence of such problems with a 26% mortality.

The disadvantages of this technique include its length (10-12 hours), a minimum of 10 anastomoses, a chance of graft kinking, increased dissection with subsequent increased blood loss (average 10-15 units), no anastomosis with thoracic or lumbar branches in the area of T₁₀-L₃, and questionable increased chance of false aneurysm at the oversewn end of the descending aneurysm. The DeBakey report included two late deaths due to massive pulmonary hemorrhage from an aorto-pulmonary fistula. This long list of disadvantages has resulted in a 26% mortality rate in DeBakey's series of 42 patients. No mention of incidence of paraplegia was reported, but other studies estimated a 5-10% incidence.^{8,9}

Crawford's Technique: After appropriate monitoring, mild hypothermia is produced (34-31°C) and auto transfusion used.⁷ A thoracoabdominal incision is made through the 7th intercostal space. Proximal and distal aortic control is

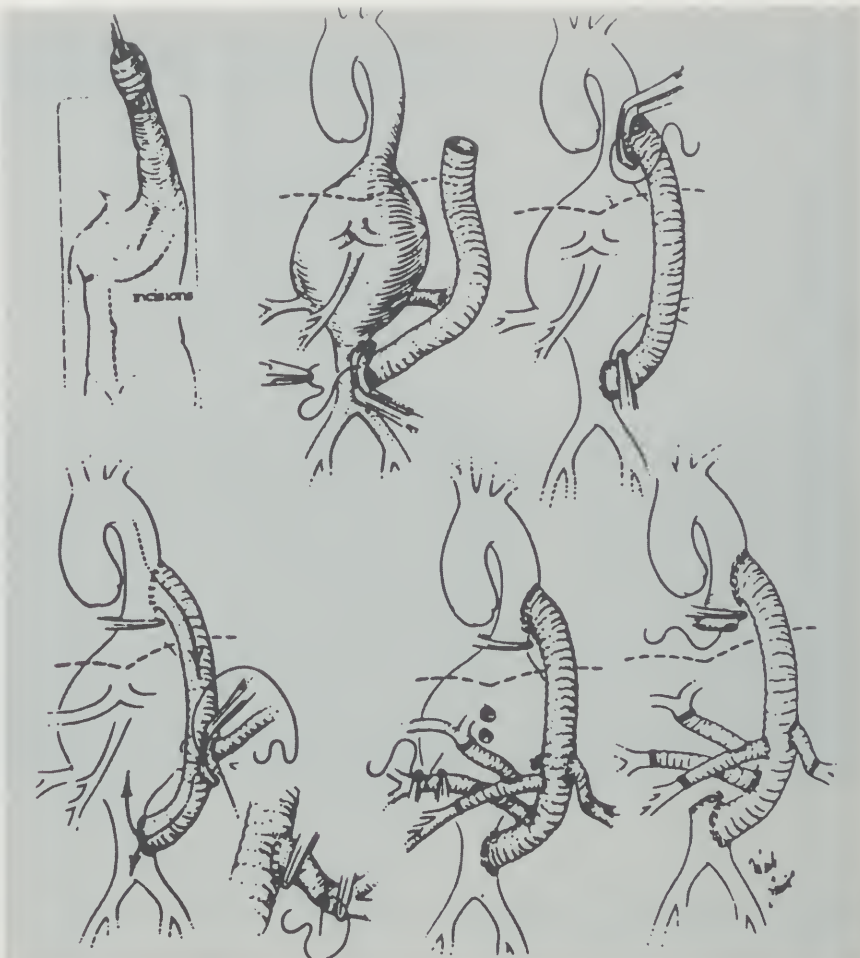


FIGURE 6

achieved. Limited systemic heparinization 100u/kg. as described by Boshier and Brooks⁷ is optionally performed. Proximal and distal aortic occlusion with incision of the aneurysm follows. Hypothermic perfusion of the renal arteries may be done per Brewster's, *et al.* protocol¹⁰ with 300 cc of a 3°C solution of 18 gm./mannitol, 20 mg./heparin, and 500 mg./Solu-Medrol in a liter of lactated Ringer's solution. This modification may decrease cellular swelling and lysosomal stabilization. This perfusion technique was not used in our study, and is not used by Crawford. After intraluminal proximal anastomosis, direct lateral anastomosis is per-

formed around the ostia of the celiac, superior mesenteric, and renal arteries (Figure 7). Lumbar branches are included, if an obvious large pair exists between T₄-L₂ level. Restoration of the celiac, superior mesenteric and renal artery flow is done very carefully to avoid hypotension. Vasopressors are used, if necessary. Following lateral implantation of the left renal artery, a distal intraluminal anastomosis or "Y" graft is performed.

The disadvantage of this technique is a longer organ ischemic time ranging from 15-150 minutes. The advantages include: simplification over previously used techniques; operating time is cut in half

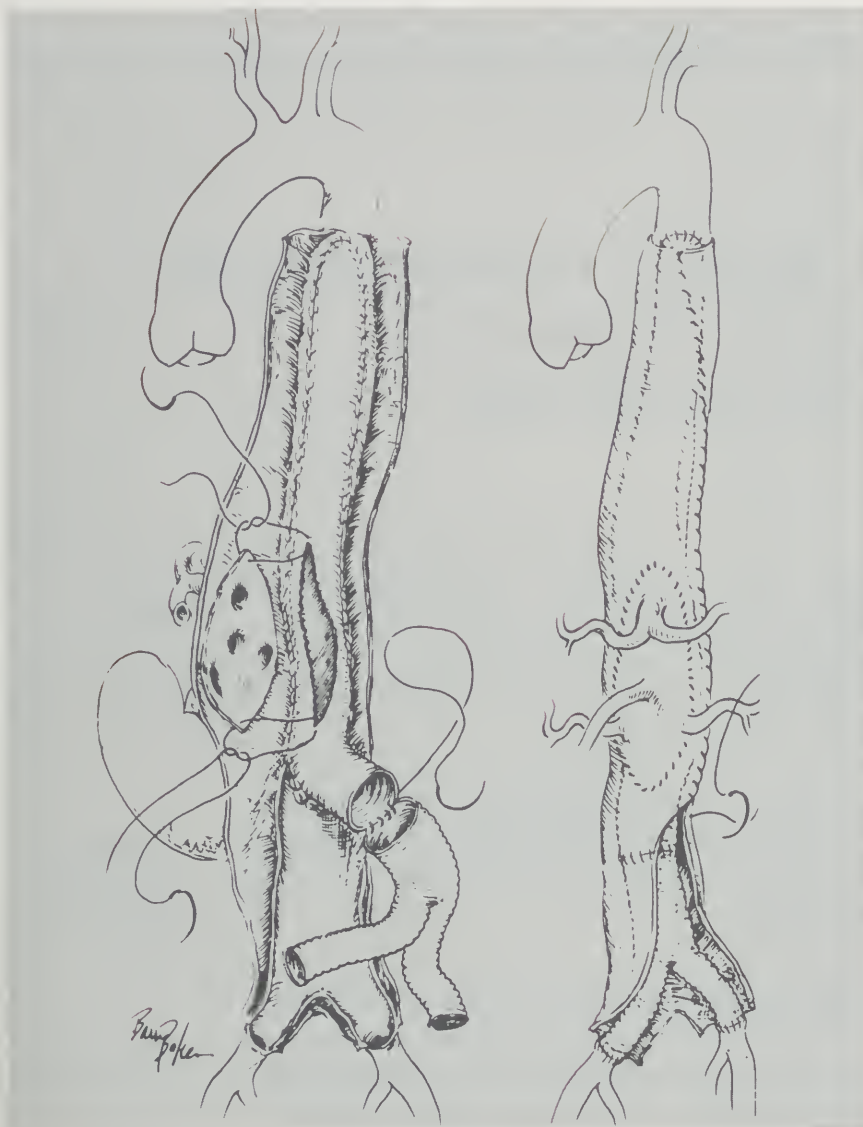


FIGURE 7

to an average of less than three hours; less anastomoses; less blood loss; and the opportunity to perform lumbar vessel anastomosis.

Crawford has shown a dramatic reduction in mortality in 92 patients to 9%. Crawford's 8% incidence of paraplegia is similar to others and his 4.5% incidence of renal failure may be improved upon with technique modifications. Our experience without a death, renal failure, or neurological damage encourages

us to continue to manage these difficult cases using Crawford's technique.

Summary

Our experience with Crawford's technique has been favorable, with no mortality, paraplegia, or permanent renal failure in four patients. Ethredge's technique is still preferred by some with fair results. However, no one to our knowledge has reported more cases than Crawford and his overall mortality

of 9% compares favorably with 26% mortality in 42 patients using Ethredge's technique. We also feel that the modifications of mild systematic hypothermia, cold perfusion of the kidneys and auto transfusion may further improve Crawford's technique to the point that surgical intervention, rather than observation, becomes a more acceptable form of therapy for the relatively large, asymptomatic, thoracoabdominal aneurysm.

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CME QUIZ

Mucopolysaccharide Storage Disorders

CONTINUED FROM PAGE 81-84

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Clinical manifestations of Hurler Syndrome include all of the following *except*:
 - a. corneal clouding
 - b. mental retardation
 - c. normal life span
 - d. dysostosis multiplex
2. The recurrence risk for a couple with a child with Hurler Syndrome for their next pregnancy is:
 - a. 100%
 - b. 50%
 - c. 25%
 - d. 10%
3. The recurrence risk for a couple with a child with Hunter Syndrome for their next pregnancy is:
 - a. 100%
 - b. 50%
 - c. 25%
 - d. 10%
4. Initial evaluation of a child suspected of having Hurler Syndrome should include all of the following *except*:
 - a. Family history
 - b. Urine MPS spot tests
 - c. Liver biopsy
 - d. Radiographs of long bones, spine and skull
5. Clinical manifestations of Hunter Syndrome include all of the following *except*:
 - a. Joint stiffness
 - b. Dysostosis multiplex
 - c. Hepatosplenomegaly
 - d. Corneal clouding
6. Maroteaux-Lamy Syndrome may be distinguished from Hurler Syndrome by the absence of which of the following clinical signs?
 - a. Dysostosis multiplex
 - b. Early mental retardation
 - c. Corneal clouding
 - d. Coarse facial features
7. Sanfilippo Syndrome presents with which of the following as its major clinical finding?
 - a. Mental retardation
 - b. Dysostosis multiplex
 - c. Cardiac involvement
 - d. Corneal clouding
8. Morquio Syndrome presents with which of the following as its major clinical finding?
 - a. Mental retardation
 - b. Corneal clouding
 - c. Hepatosplenomegaly
 - d. Skeletal involvement
9. Type VII Mucopolysaccharidosis is clinically indistinguishable from which other type of Mucopolysaccharidosis?
 - a. Hurler Syndrome
 - b. Hunter Syndrome
 - c. Sanfilippo Syndrome
 - d. Morquio Syndrome
10. The following types of Mucopolysaccharidoses are associated with the storage of dermatan sulfate and heparan sulfate *except*:
 - a. Hurler Syndrome
 - b. Scheie Syndrome
 - c. Hunter Syndrome
 - d. Morquio Syndrome

Following are the answers to the CME quiz that appeared in the January 1981 issue of THE JOURNAL: "Management of the Acute Ingestion of Poison in Children," by Philip F. Merk, M.D., and John E. Heubi, M.D.

- | | |
|------|-------|
| 1. c | 6. d |
| 2. a | 7. c |
| 3. b | 8. c |
| 4. a | 9. c |
| 5. b | 10. b |

January CME Quiz Answers

Answer sheet for Quiz: (Mucopolysaccharide . . .)

- | | |
|------------|-------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for credit for this month's quiz, send your completed, signed application before Mar. 10, 1981, to the address appearing at the top of this page.

BRITISH BROWSINGS

DUKE H. BAKER, M.D.
Indianapolis



Continuing Medical Education

A Literature Review

Continuing Medical Education (CME) is a popular topic these days. Journals of health professionals abound with articles addressing the theme. The *British Medical Journal* recently published an article from the Ciba Foundation of London which expressed concern about the creation of systems of CME that have rarely been subjected to objective evaluation and often seem inappropriate to the needs of the medical graduate. The authors attempted to review the system of CME described in publications from 1960 to 1979, with an emphasis on those papers purporting to contain objective data. On the basis of their observations, having reviewed 51 papers, they drew several conclusions:

- 1) Journals of high quality play a major part in providing information for the medical graduate.
- 2) Educational processes that include personal contact—for example, lectures, seminars, and courses—are valued and effective but little used.
- 3) In general, electronic aids are neither valued nor used.
- 4) A high proportion of the published studies on techniques of postgraduate education are valueless.
- 5) Self-instruction is the basis of effective postgraduate education.
- 6) There probably will be a growing demand for problem-determined information, for example, TOX-LINE (U.S. National Library of Medicine's Toxicological data bank).¹

Use of a Library

Proceeding with the aforesaid conclusions that self-instruction is the basis of effective postgraduate education and that journals of high quality play a major role in providing information, it would appear the first steps in the process of studying are best done at home reading the journals which arrive by mail or reading

textbooks both old and new in the practitioner's own environment.

In addition, physicians are looking to their hospital libraries for learning materials. In an article from Institute of Virology, University of Glasgow, the author points out that, although most doctors use a medical library, either regularly or occasionally, many probably do not realize the full range of services available to them. He suggests techniques such as reading the editorials of *British Medical Journal*, *Lancet*, and *Nature* as a way of keeping up with the major developments in medicine. Spending half-an-hour each week with *Current Content* and a pile of reprint request cards is offered as a rewarding experience.

The technologic advance of the availability of photocopiers and inter-library loan agreements permits access of the physician through the local hospital library to other large comprehensive collections. The author recommends studying the library system of catalogues and the layout of the library. Library staff personnel are happy to help, and their help in drawing attention to the available resources of the library is invaluable.

Most medical readers will be familiar with *Index Medicus*, which lists articles in periodicals under the headings of subject and author, with a list of medical review articles at the front of each issue. *Index Medicus* has now been computerized as *Medicine*, an incredibly fast and efficient way of obtaining a list of articles published on a given topic. Doctors will want to use libraries to read textbooks that are too expensive or too peripheral to their main interests to justify purchase.

Finally, it is mentioned that a key factor in using a library successfully and efficiently is getting to know the staff. Most libraries are proud of their good staff, and professional help and advice from librarians can expedite difficult or urgent requests. Libraries have adapted and have themselves adopted modern technological methods, and offer a more rapid and comprehensive service than ever before.²

Patient Management Problems

Another example of kinds of materials potentially useful to the physician in his or her personalized program of self-study and continuing medical education is the challenge of well designed Patient Management Problems (PMP). In an article from the Centre for Medical Education, the University, Dundee, the authors describe a new approach to CME which they had implemented:

A series of six patient-management problems were posted to 20,000 doctors throughout Britain. Each doctor had to decide on the diagnosis, investigations, and treatment of the patients described. The challenges covered problems that were important in the doctor's day-to-day work and were designed so that he could obtain immediate feedback about his decisions and compare his own responses with those of a specialist and those of his colleagues. Additional information was available by telephone and by post on request.

The authors report that the physician response to this approach to CME was encouraging. Doctors appear to have used it and to have considered that they learned from it. Most found the approach stimulating and thought-provoking. The reasons for the favorable response to the challenges will, the authors hope, emerge from a more detailed study. They assume that several factors contributed to the success of the project.

The factors included: careful preparation of the PMP aimed at the user audience, that is, the general practitioner; issues of practical importance rather than theory; opportunity for the doctor to assess his own competence and compare his or her performance both with a specialist and with his peers; immediate feedback during the exercise; a learning experience at a time and place convenient to the doctor.³

Robert H. Moser, executive vice president of the American College of Physicians, recently summed up his thoughts in this area when he wrote, "The annual excursion (teaching sessions away from home) is worthwhile. But this is not where the bulk of medical education will be provided in the future. The new focus will be home and hospital."⁴

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4. Moser RH: CME: the bloom is off the bush. *Forum on Medicine*, 3(6):418-419, 1980.

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Howard Grindstaff
Field Services Representative

Meet Your ISMA Staff



Sara Klein, R.N.
Field Services Representative

WHEN HOWARD GRINDSTAFF joined ISMA 23 years ago as a "field secretary," he was assigned to cover the northern portion of Indiana. Bob Amick had southern Indiana and Wayne Worick handled liaison duties in the central portion of the state.

Howard had worked previously for 12 years as a representative of an Indiana dental supply company. During World War II, while a gunner on a B-17, the bomber was shot down and he was confined in a German prison camp for 13 months.

Today, the Indianapolis native is one of two Association field services representatives; after a recent period of trying to blanket the entire state alone, he is once again responsible primarily for the northern portion of Indiana.

Howard's duties include serving as a liaison between the state office and county societies. He logs about 40,000 miles a year attending county society meetings where he briefs members on Association activities and on national and state medical legislation. In turn, of course, he advises Association officers of potential problem areas at the county level.

Until recent years, field services reps served as official lobbyists for the Association. Today, Howard puts to use some of that experience by serving as executive director of the Indiana Medical Political Action Committee (IMPAC).

He and his wife Phyllis, an employee of Indiana Health Careers, have two married sons, Kurt and Marc. Howard, who was named a Sagamore of the Wabash three years ago, lists his leisure activities as golf, boating, fishing and bridge.

SINCE JOINING ISMA in July 1979, Sara Klein has been the Association's "Jail Project" coordinator. But since it was learned that funding on the present scale may not be forthcoming for the AMA-sponsored program to improve medical and health care in jails, Sara has been selected to join Howard Grindstaff as a field services representative. She will wear both hats only until the Jail Project contract officially expires in May.

During her tenure as Jail Project coordinator, Sara spent much of her time on the road providing technical assistance to those Indiana jails that asked for her help. Formerly, she was employed as a jail nurse with the Vanderburgh County Sheriff's Department in Evansville, her home town. She also has been a neo-natal nurse.

Her primary functions with the Jail Project have been to develop a health care program for any county jail that wants or needs one. She has coordinated the administration and health extender services needed, and she has arranged for the services of "jail physicians." Sara, an R.N. who holds a bachelor's degree, has conducted seminars for physicians, nurses and jailers, explaining how to properly receive and screen prisoners, and how to provide them with health care while jailed.

At last count, 10 county jails in Indiana had brought their medical systems into compliance with AMA standards. ISMA can boast that Indiana is the leading state for jail accreditation.

Besides these activities, Sara serves as staff coordinator for the Commission on Physician Impairment and as liaison between ISMA and the Indiana State Nurses Association.

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BOOK REVIEWS

Breast Cancer: Epidemiology, Endocrinology, Biochemistry and Pathobiology

Helmuth Vorherr, M.D. Copyright 1980, Urban & Schwarzenberg, Baltimore. 487 pages, \$42.50.

Breast Cancer comes from the pen of Helmuth Vorherr, M.D., of the University of New Mexico School of Medicine. Contained in the volume is current knowledge on the risk factors of breast cancer integrated with the epidemiology, virology, biochemistry, endocrinology, and immunology of this perplexing disease.

The volume is encyclopedic in its coverage of the subject, an aspect redeemed by the excellent summaries at the end of each chapter. Representative topics discussed include mortality and incidence, carcinogenesis, lifestyle in relation to breast cancer, conditions potentially protective, and the relationships between various hormones and breast cancer. These sections include prolactin, thyroid, sex steroids, melatonin, growth hormone, insulin, and glucocorticosteroids.

How estrogen administration can affect the incidence of breast cancer is also dealt with. Diagnosis and treatment are the subjects of separate chapters. Finally, the present status and future outlook of this ubiquitous ailment is covered.

The book is adequately illustrated, has an unusually complete bibliography, plus a detailed index.

W. D. SNIVELY, JR., M.D.
Evansville
Internal Medicine

Cardiac Emergency Care

Edited by Edward K. Chung, M.D. Copyright 1980, Lea & Febiger, Philadelphia. 475 pages, \$25.

This extremely useful book, the various sections of which are written by cardiologists of impeccable credentials, will no doubt be used by the practicing physicians of our staff more than any of the other texts on heart disease available in our library. The essential back-ground on all types of cardiac emergencies is presented in enough detail so that the indications and expected results of the various recommended measures can be well understood. The cook-book style will appeal to physicians who want to know quickly what to do.

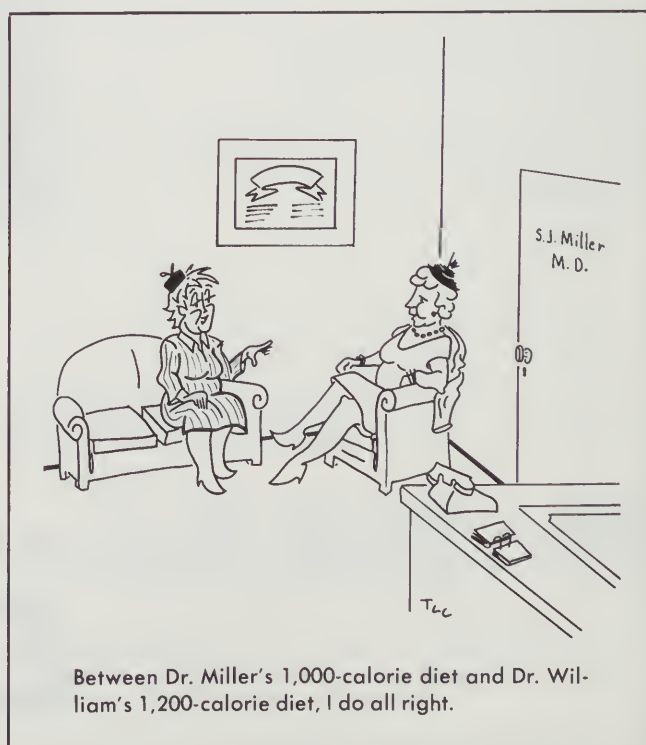
The chapter on Sick Sinus Syndrome is particularly helpful. Electrocardiograph examples of the various arrhythmias which compromise life are presented and their interpretation clearly stated. In the section on

organization and function of the coronary care unit, the one-page summary of indications and dosage for the drugs usually required there will save many precious minutes that otherwise might be required for consulting pharmacology texts. When and how to perform cardiac catheterization for hemodynamic monitoring is succinctly outlined. A rapid review of electrical cardioversion by Resnekov will convince anyone that this procedure should be undertaken only by those especially trained. The need for anticoagulation before its use in persons who are at risk from embolism is emphasized. This would include those with recent myocardial infarction, cardiac aneurysms, prosthetic heart valves, history of embolism. The author also warns of the risk in patients heavily digitalized or in potassium imbalance.

Since nurses very frequently must initiate emergency cardiac care and maintain it until a physician arrives, the section on the nurses' special responsibilities is quite important. One might add that very frequently the physician who is not a specialized cardiologist may benefit from the advice of a skilled coronary-care nurse.

This reviewer is impressed by the practical usefulness of Chung's book. It should be readily available in all emergency rooms and coronary care units as well as hospital libraries.

PAUL S. RHOADS, M.D.
Richmond
Internal Medicine



Percutaneous Vascular Recanalization

Edited by E. Zeitler, A. Gruntzig, W. Schoop. Copyright 1978, Springer-Verlag, Berlin. 204 pages with illustrations, \$31.90.

Enthusiasm for percutaneous arterial dilation has waxed, waned, and now waxes again. With older techniques, early failure rates of 50 to 70% were common. Now that the technology has changed and experience has grown, it is reasonable to reintroduce this therapeutic modality into clinical practice. Case selection must be vigorous—only a small fraction of patients with peripheral vascular disease are amenable to this procedure. The ideal anatomical target remains the localized tight stenosis due to a mature toughened, atherosclerotic lesion. This book elaborates the evolution of present recanalization techniques, the risks and results and its indications for patients with vascular disease of the lower extremities.

While many brief essays display good initial results, it is significant that the longest chapter deals with the complications. Artificial neolumens—created when the catheter runs between the atheromatous core and the remaining outer wall of the artery—rarely stay open. Instead, they pose the additional negative effect of compressing the remaining lumen. The “snow plow effect” (the pushing ahead of atheromatous tissue so that collateral branches are occluded) may now be less common since the Dotter coaxial dilation procedure has been replaced by the Gruntzig balloon dilation technique. What happens to the downstream emboli and the long-term behavior of the compressed and remodeled atheromatous beds still remain in the “scientifically unexplained” category.

Several relevant basic science concepts are presented. For example, thrombi that dwell in the atherosclerotic arteries behave differently from those in normal arteries. The diseased intima has little ability to integrate the thrombus into the arterial wall. Thus, combined thrombolysis and dilatation may be successful months after a thrombotic occlusion. An intriguing application of “noninvasive” transvenous xeroarteriography for peripheral arteries also merits close attention. Special clinical indications, e.g., dilation therapy to improve longevity of A-V fistulae in hemodialysis patients, or combined percutaneous angioplasty and surgery for patients with multiple vascular lesions, are also covered.

While this book is not yet ready to be subtitled “Sic transit gloria scalpelli,” it does promise a bright future for selected patients seeking a viable alternative to vascular surgery.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

CONTINUED ON NEXT PAGE

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Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

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Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

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Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

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Prolonged or excessive use of corticosteroids might produce systemic effects.

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Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

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NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

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BOOK REVIEWS

Burn-Out: The High Cost Of High Achievement

Herbert J. Freudenberger, Ph.D. Copyright 1980, Anchor Press, Garden City. 214 pages, \$9.95.

A Burn-Out is someone in a state of fatigue or frustration brought about by devotion to a cause or a relationship that failed to produce the expected reward. Burn-Outs are usually high achievers who have intense and full schedules. The first stage of Burn-Out is heralded by "increasing irritability, lackluster sex life, cynicism, disenchantment, and other manifestations of emotional and physical fatigue". Burn-Outs often unwittingly select any number of false cures: e.g., if work is disappointing them, they try more work, looking for greater and greater achievement. These false cures intensify the Burn-Out, spreading it faster and further. The despondency that often appears as the flip side of this intensity makes Burn-Outs susceptible to the lure of drugs and other despicable "D" like disengagement, distancing, dulling, and deadness.

After defining the problem of Burn-Out, Dr. Freudenberger here shows that by monitoring yourself and your behavior patterns, you can prevent Burn-Out and pace yourself realistically. His advice and workable cures can restore the vitality, energy, and spark missing from the over-achiever's life. All health professionals and patients suffering from Burn-Out will benefit from reading this book.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

Mesmerism

F. Mesmer; translated and compiled by George Bloch, Ph.D. Copyright 1980, William Kaufmann, Inc., Los Altos, Calif. 150 pages, \$10.

Franz Anton Mesmer was an 18th century Austrian physician whose startling methods of treatment were at first widely acclaimed and later ridiculed. Nevertheless, mesmerism has achieved a permanent place in the vocabulary of English. Believing in what he called "animal magnetism," Mesmer believed he could use this animal magnetism to fight disease. Now, in *Mesmerism*, we have a translation of the original medical and scientific writings of Dr. Mesmer by George Bloch, Ph.D.

Among the topics covered by Mesmer are his explanation of subliminal influences, of the influence of psychologic factors in medicine, of the development of social psychology, descriptions of how the senses work, nature as a healing force, the distinction between mechanical and animal magnetism, the similarities of Mesmer's ideas to those of Hippocrates, attempts to

explain human physiology in terms of physical laws, and, finally, a critical attitude toward the practice of medicine in his time.

His condemnation of the widespread practice of bloodletting is particularly pertinent: "... in debilitating the forces (inherent in the blood) under the pretext of preventing or curing imaginary inflammations, one often produces ailment where none existed."

This paperbound book of 150 pages should prove of considerable interest to medical historians or, indeed, to anyone interested in the controversial but fascinating figure of Mesmer.

W. D. SNIVELY, JR., M.D.
Evansville
Internal Medicine

Manual of Vascular Surgery, Vol. 1

Edwin S. Wylie, Ronald J. Stoney and William K. Ehrenfeld. Copyright 1980, Springer-Verlag, New York, 264 pages, 557 illustrations.

In vascular surgery, life and limb clearly depend upon an inventory of small choices. Such careful particularism suffuses this text. But another quality distinguishes it from similar atlases by other experienced surgeons. Instead of the usual shadow-play plane of reality, born of dogma and line drawings, an extraordinary credibility emerges here. The lavish use of full-color, intraoperative photographs provides that extra touch of authenticity. For example, this "documentation with a human face" goes a long way toward convincing surgeons who "always use bypass grafts" that, at times, aortic endarterectomy is quite an acceptable procedure.

This volume focuses on surgery for atherosclerosis of the aorta and all its major branches. Particular attention is directed to how the long term natural history of atherosclerosis influences the choice of an operation. The pathologic variations that require modification of a planned procedure also are emphasized. For example, exactly when it is prudent to use a Javid shunt despite adequate carotid stump pressures is clarified. Other difficult problems, such as recurrent carotid stenosis, horse-shoe kidney, visceral atherosclerosis, etc., all receive full coverage, as does when to choose bypass grafting over endarterectomy. Tricks of the trade, like the use of temporary "T tube" crossover carotid shunts, or how to size an aortofemoral graft when only the profunda femoris is patent, abound.

As this text also recapitulates all the basic techniques of arterial reconstruction, it will enrich and enchant both abecedarians and accomplished vascular surgeons. Recommended for all major hospital libraries.

ALAN T. MARTY, M.D.
Evansville
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FUTURE FILE

Allergists Plan April Meeting

The 37th Annual Congress of the American College of Allergists will be held April 4-8 at the Sheraton-Washington Hotel, Washington, D.C.

Category 1 credit will be granted on an hour-for-hour basis. A registration fee will not be charged for fellows or residents in allergy training, or for nurses in allergy programs presenting letters from department heads of teaching hospitals.

Contact Shirley Schoenberger, 2141 Fourteenth St., Boulder, Colo. 80302. Tel: (303) 447-8111.

AMA Seminar on Negotiations

An Introductory Seminar for Physician Negotiations: Dynamics of Conflict Resolution will be conducted by the AMA March 19-21 at Stouffer's Cincinnati Towers, 141 West Sixth St., Cincinnati 45202.

Registration is \$325 for AMA members and medical society staff personnel and \$450 for others. The fee includes educational materials and luncheons.

To register, contact the AMA Department of Negotiations, 535 N. Dearborn, Chicago 60610. Tel: (312) 751-6000.

Polytomography Seminar Announced

The 24th two-day Symposium on Polytomography of the Temporal Bone will be conducted April 11-12 at Community Hospital in Indianapolis under the auspices of the Wright Institute of Otology.

The symposium is accredited for 12 Category 1 hours. Fee for the course is \$300.

Subjects to be covered will include the basic anatomy of the temporal bone and the technique of polytomography of the temporal bone, with demonstrations of normal tomograms. Pathological conditions revealed by polytomography will be shown on original tomograms and the clinical applications will be discussed.

Contact The Wright Institute of Otology, Inc., Community Hospital of Indianapolis, 1500 N. Ritter Ave., Indianapolis 46219. Tel: (317) 353-5679.

Indiana Child Care Conference

The 16th Annual Indiana Multidisciplinary Child Care Conference will be held May 20-21 at the Airport Hilton Hotel in Indianapolis.

The AAFP will grant 12 hours credit and the American Academy of Pediatrics will grant PREP CME credit.

For details, contact Dr. Morris Green, 1100 W. Michigan St., Indianapolis 46223.

Summer Humanities Seminars

Summer Humanities Seminars for Medical and Health Care Teachers have been announced by the National Endowment for the Humanities. Applications are invited from full-time clinical and basic science teachers and academic administrators at American schools of medicine, nursing, allied health, public health, pharmacy, dentistry, and osteopathy.

Four- and five-week seminars will be held at selected campuses throughout the country. Twelve persons will be chosen to attend each seminar tuition-free and will receive a stipend (\$1,565 for five weeks; \$1,250 for four weeks) for expenses and travel. Application deadline is March 2 with awards announcement about March 31.

For full information and application forms, write to Professions Programs, Division of Fellowships and Seminars (MS 101), National Endowment for the Humanities, Washington, D.C. 20506.

N.I.T.A. Plans Annual Meeting

The National Intravenous Therapy Association will hold its Ninth Annual Convention March 22-26 at the Sheraton Hotel in Boston.

Inquiries should be sent to N.I.T.A., 93 Concord Ave., Suite 4, Belmont, Mass. 02178.

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Hospital Leadership Seminars

The AMA Hospital Staff Leadership Seminars will be conducted this year in four locations. The midwest seminar will be held at the Drake Hotel, Chicago, Sept. 18-19. Other seminars are scheduled for Atlanta on March 27-28, at Washington, D.C. on May 8-9, and at Los Angeles on Nov. 11-12.

Tuition is \$375, except that current AMA members will pay only \$250. Additional registrants from the same hospital, including trustees and administrators may attend at half the tuition they would otherwise pay.

For complete information, write to Department of Hospitals & Hospital Facilities, AMA, 535 N. Dearborn, Chicago 60610.

Technology Assessment Forum

Discussion of the key economic, ethical and social issues related to coronary artery bypass surgery will be held in a technology assessment forum sponsored by the National Center for Health Care Technology at the Sheraton Washington Hotel, Washington, D.C., April 21-23.

Write or call Elaine Kokiko, Moshman Associates, 6400 Goldsboro Road, Washington, D.C. 20034. Tel: (301) 229-3000.

Geriatric Course in Chicago

A CME course entitled "Practical Management of Common Geriatric Problems" will be conducted in Chicago March 13-14.

The program, sponsored by Rush Medical College and the Johnston R. Bowman Health Center for the Elderly, will be held at Rush-Presbyterian-St. Luke's Medical Center. It is approved for 14 AMA Category 1 credit hours.

For details, contact Gerry W. Weatherly, University Office of Continuing Education, Rush-Presbyterian-St. Luke's Medical Center, 600 S. Paulina, Chicago 60612. Tel: (312) 942-7095.

Finance Course in Chicago

The Wharton School of the University of Pennsylvania offers a course on "Fundamentals of Finance and Accounting for the Non-Financial Executive" at several locations. The seminar will be presented in Chicago March 11-13.

The fee is \$745 plus \$85 for each organization, payable in advance. Fees include the cost of all workbook and handout materials.

Register by sending check made out to Wharton-Fund F-Seminar, to Registrar—14th Floor, University Conference Center, 360 Lexington Ave., New York, N.Y. 10017.

MacKenzie Seminar in March

The MacKenzie Seminar will be held at 1 p.m. March 19 at St. Mary's Medical Center in Evansville on the subject of the female genitourinary tract. Anatomy, physiology, urethroscopy, urinary tract infections and stress incontinence will be covered by visiting specialists.

The seminar is approved for four hours of Category 1 credit, four prescribed hours by the American Academy of Family Practice, and four Cognates Formal Learning Credits by the American College of Obstetricians and Gynecologists.

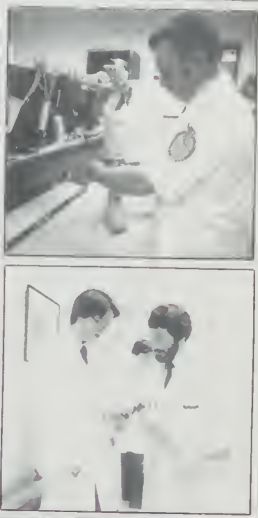
'Impaired Professional' Conference

The Indiana State Medical Association is one of the co-sponsors for a Mid-Eastern Regional Conference on the Impaired Professional to be held at the Hilton Inn North in Worthington, Ohio, March 14-15.

Key topics will include professional stress, prevention of suicide, stress on the family, problem of the "workaholic," early identification, intervention, rehabilitation and re-entry.

To register, contact Sara Klein, R.N., ISMA, 3935 N. Meridian St., Indianapolis 46208. Tel: 800-382-1721.

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AUXILIARY REPORT

Dorothy (Mrs. Herbert A.) Schiller
President, ISMA Auxiliary

Lois Walker
Chairman
Health & Quality of Life
Committee

The AMAA is in the second year of its Shape Up for Life campaign. Its goal is public awareness of the importance of proper diet and physical fitness.

We have urged auxiliary members to participate in this program, combining it with two other state and national projects, AMA-ERF and Voluntary Effort. As each person Shapes Up for Life, she will lose weight; the number of pounds

lost can be converted to dollars and donated to AMA-ERF. The result of focusing attention on correcting our personal health habits should be better health, thus lowering health care costs, and achieving the goal of the Voluntary Effort.

A progress report will be made at the House of Delegates in April.

Two resolutions were passed at the 1980 AMAA Convention which merit our consideration.

The first resolution adopted was to continue the promotion of the Shape Up for Life campaign through 1981-82, stressing mental

health and fitness.

The other resolution approves the concept of the International Year of Disabled Persons, 1981, and urges AMAA members to increase and/or initiate programs to assist disabled individuals to become contributing members of society to the best of their abilities.

Your chairman has been studying information about the health issues involved in the above resolutions. At our January Board meeting these topics were discussed, and hopefully we will select projects for ISMA approval.

In Memoriam Beth Bowen

We are deeply grieved by Beth's passing. She has touched the lives of each of us and we are better for having known her.

To be a doctor's wife is something special in itself, but at the same time to be a governor's wife is truly unique. But to be the First Lady of the State of Indiana, a doctor's wife and a former president of the Indiana State Medical Association Auxiliary is truly rare and a combination that is one of a kind!

But Beth was rare, she was special, she was one of a kind! Beth, our First Lady, a great lady, a beloved lady, will be sorely missed and everlastingly loved.

DOROTHY SCHILLER
President
Indiana State Medical
Association Auxiliary

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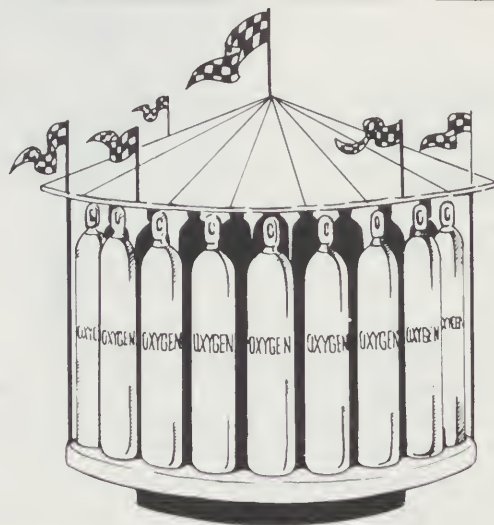
December 31, 1980

COUNTY	ACTIVE	EXEMPT	ISMA TOTAL	AMA TOTAL	COUNTY	ACTIVE	EXEMPT	ISMA TOTAL	AMA TOTAL
ADAMS	10	2	12	10	LAKE	522	42	564	485
BARTHOLOMEW	78	10	88	71	LAPORTE	79	11	90	76
BENTON	3	1	4	3	LAWRENCE	44	4	48	30
BOONE	13	6	19	13	MADISON	92	16	108	68
CARROLL	9	2	11	11	MARSHALL	20	—	20	17
CASS	32	4	36	23	MIAMI	17	3	20	16
CLARK	69	1	70	46	MONTGOMERY	22	5	27	16
CLAY	8	2	10	9	MORGAN	19	4	23	19
CLINTON	8	4	12	10	NEWTON	5	—	5	2
DAVIESS-MARTIN	14	4	18	11	NOBLE	12	2	14	11
DEARBORN-OHIO	18	2	20	12	ORANGE	8	1	9	3
DECATUR	8	2	10	8	OWEN-MONROE	109	11	120	59
DEKALB	14	6	20	18	PARKE-				
DELAWARE	132	18	150	99	VERMILLION	12	1	13	10
DUBOIS	30	3	33	25	PERRY	5	2	7	7
ELKHART	107	12	119	85	PIKE	1	—	1	1
FAYETTE-					PORTER	93	4	97	84
FRANKLIN	22	2	24	15	POSEY	3	3	6	6
FLOYD	54	6	60	43	PULASKI	5	1	6	4
FORT WAYNE	365	49	414	354	PUTNAM	12	3	15	12
FOUNTAIN	10	2	12	10	RANDOLPH	10	7	17	13
FULTON	5	2	7	5	RIPLEY	4	3	7	7
GIBSON	9	4	13	12	RUSH	7	4	11	9
GRANT	68	15	83	75	ST. JOSEPH	225	48	273	273
GREEN	11	5	16	11	SCOTT	6	1	7	7
HAMILTON	19	2	21	15	SHELBY	20	5	25	18
HANCOCK	26	1	27	17	SPENCER	2	—	2	—
HARRISON	6	1	7	6	STARKE	7	3	10	8
HENDRICKS	27	3	30	19	STEUBEN	13	2	15	11
HENRY	35	5	40	29	SULLIVAN	8	4	12	10
HOWARD	80	9	89	82	TIPPECANOE	163	22	185	149
HUNTINGTON	17	6	23	9	TIPTON	9	3	12	11
INDIANAPOLIS	1146	181	1327	1072	VANDERBURGH	320	39	359	297
JACKSON	19	4	23	17	VIGO	109	26	135	98
JENNINGS	3	—	3	3	WABASH	21	3	24	13
JASPER	7	2	9	7	WARRICK	13	1	14	6
JAY	14	3	17	12	WASHINGTON	6	1	7	7
JEFFERSON	25	4	29	22	WAYNE-UNION	75	12	87	75
JOHNSON	37	2	39	23	WELLS	43	10	53	51
KNOX	49	5	54	43	WHITE	5	2	7	7
KOSCIUSKO	19	2	21	15	WHITLEY	8	2	10	8
LA GRANGE	6	2	8	5					
					TOTALS	4786	707	5493	4378



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NEWS NOTES

Prof. Mercadier, French Surgeon, To Inaugurate Finneran Seminar Series In April



Professor Maurice Mercadier, one of the most prominent general surgeons in France, is scheduled to inaugurate a series of seminars to be held at St. Vincent Hospital and Indiana University Medical Center in Indianapolis, beginning April 20 and 21. The series will be conducted under the auspices of the Finneran Surgical Endowment Fund.

To facilitate planning for a special dinner on Monday, April 20, dinner reservations should be made as soon as possible by sending a check for \$30, payable to St. Vincent Foundation, to Harris B Shumacker, Jr., M.D., 8402 Harcourt Road, Indianapolis 46260. The dinner fee will cover preprandial libation. There will not be a fee for the scientific sessions.

Physician Cannot Recover On Deceased Patients' Bills

A physician could not recover for medical services from the estates of two patients because his claim was filed too late, an Indiana appellate court has ruled.

The physician filed suit against the executors for \$1,587 plus costs. A trial court granted judgment for the physician, but the appellate court reversed.

The physician did not file his claim within five months after the date of the first published notice to creditors after the patients' deaths. Consequently, his claim was barred by the Probate Statute, the court said.—*Rising Sun State Bank v. Fessler*, 400 N.E.2d 1164 (Ind. Ct. of App., Feb. 27, 1980)

Baby's Best Diet: Mother's Milk

Mother's milk is the best food for infants, according to absorption studies reported in the December *Journal of the American Dietetic Association*.

Infants absorb about 50% of the iron in breast milk but only 4 to 10% of the iron from cow's milk and fortified formulas. In the case of calcium, the absorption from human milk is about two-thirds and only 25 to 30% from cow's milk.

Sodium intake was reported as higher than normal from formula. Homemade infant foods of the solid variety should not be seasoned to adult taste. Commercial solid foods for infants no longer contain salt.

I.U. Researcher Reports Success With Rare Cancer Drug

Indiana University chemist Paul A. Grieco has reported recently on successful synthesis of quassin. Quassin is a natural substance found in certain South American plants. It is a natural precursor of bruceantin which, it now appears, is potent against leukemia. Grieco hopes ultimately to synthesize a substance similar to bruceantin which will be simpler, easier to make and will be more effective against leukemia.

'Good Health' Series for Kids

A series of eight classroom video programs is available for children in grades 3 through 5. The subject of each 15-minute program is "The Inside Story on Good Health."

The series teaches children about their bodies and shows them that they can have fun doing the things that keep them healthy. A teacher's guide accompanies the series.

For details, contact the Agency for Instructional Television, Box a, Bloomington, Ind. 47402.

New VA Disability Category

The Veterans Administration has formed a new category of disability and compensation for a problem that develops years after leaving military service. The new category is called post traumatic stress syndrome. To qualify, the veteran must have a condition specifically diagnosed by a VA physician, as well as a history of a life-threatening experience such as combat service or a period as a prisoner of war.

Future AMA Meetings

The AMA has announced its annual meeting schedule through 1985. All such meetings will be conducted at the Chicago Marriott. Dates are as follows:

June 7-11, 1981; June 13-17, 1982; June 19-23, 1983; June 17-21, 1984; and June 16-20, 1985.

The AMA's interim meetings will be held Dec. 6-9, 1981, at the Las Vegas Hilton; Dec. 5-8, 1982, at the Fountainbleu Hilton, Miami, Fla.; and Dec. 4-7, 1983, at the Los Angeles Biltmore.

VA Offers Benefits Pamphlet

The VA has a new publication, "Veterans Benefits for Older Americans," available through VA regional offices and veterans service organizations. The free pamphlet highlights eligibility for VA medical care, compensation and pension programs, and burial benefits. It is estimated that there are 3 million veterans age 65 or over at present. By 1985 this figure is expected to be 5 million and by 1990 it will be more than 7 million.

Here and There . . .

. . . **Dr. Gordon C. McLaughlin** of Indianapolis has become a member of the American College of Radiology.

. . . **Dr. Jerome C. Schubert** of Fort Wayne has been elected president of the medical staff at Parkview Memorial Hospital. Other officers: **Dr. James P. Scudder**, president-elect; **Dr. James P. Sidell**, secretary-treasurer.

. . . **Dr. H. Eugene Newby** of Sheridan was awarded a plaque by Marion-Adams High School during the school's Fall Sports Program. He was cited for "being on the spot" with assistance at numerous school sporting events.

. . . **Dr. John O. Butler** of Indianapolis has been elected secretary of University Heights Hospital. **Dr. Francis W. Price, Jr.** was elected assistant treasurer.

. . . **Dr. D. Dean Cofield** of Bloomington has been elected chief of staff of the Bloomington Hospital medical staff. **Dr. Alan B. Somers** was named chief of staff-elect; **Dr. Dwain C. Illman**, secretary; and **Dr. Jonathan T. Stafford**, treasurer.

. . . **Dr. Robert B. Nolan** of Carmel was recently awarded a Silver Anniversary Citation for 25 years of service to mankind by the Creighton University School of Medicine, from which he was graduated in 1955.

. . . **Dr. William E. Brandt** of Fort Wayne has been elected president of the medical-dental staff of St. Joseph's Hospital. **Dr. Robert H. Musselman, Jr.** was elected president-elect.

. . . **Dr. Iver F. Small** of Indianapolis recently was quoted in *People* magazine. A specialist in electroconvulsive therapy at the I.U. Medical Center, he said, "You can treat 75 to 80% of severely depressed patients with drugs, but the rest are left with a pretty lousy existence. If ECT therapy is used, you can treat up to 95%. ECT isn't harmless, but it's a thousand times less harmful than what the illness does to the brain."

. . . **Dr. Jere D. Guin** of Kokomo, a frequent contributor to THE JOURNAL, has been admitted as a Fellow of the American College of Physicians.

. . . **Dr. William M. Dugan**, director of Clinical Oncology at Methodist Hospital in Indianapolis and author of THE JOURNAL's monthly "Cancer Corner," has been elected vice-president of the Ohio Valley-Lake Erie Association of Cancer Centers.

. . . **Dr. Thomas J. Stolz** of Lafayette and **Dr. Quentin B. Emerson** of Fort Branch have been named Fellows of the American Academy of Family Physicians.

. . . Two Marion surgeons, **Dr. David C. Brandes** and **Dr. David G. Roe**, have been accepted as members of the American College of Surgeons.

. . . **Dr. Charles R. French** of Terre Haute has been named a diplomate of the American Board of Family Practice.

. . . **Dr. Joe G. Jontz** has been elected president and **Dr. Alan J. Perry** has been elected secretary-treasurer of the Fort Wayne Surgical Society.

. . . **Dr. Mark M. Bevers** of Seymour, ISMA's Fourth District trustee, has been appointed to the advisory board for the 5th national conference on Child Abuse and Neglect, to be held in Milwaukee in April.

. . . **Dr. Robert J. Madden** of Greenwood has been elected president of the St. Francis Hospital medical staff, Beech Grove. **Dr. Karl M. Koons** of Indianapolis was elected vice-president, and **Dr. Robert R. Kopec**ky, Indianapolis, was elected secretary.

. . . **Dr. David G. Yahnke** has been named chief of the medical staff at Bartholomew County Hospital. **Dr. Stanley R. Adkins** was named president-elect, and **Dr. William L. Pearce** was elected secretary. All three physicians are from Columbus.

. . . **Dr. James R. Lewis** of Richmond has been elected chief of the medical staff, Reid Memorial Hospital.

. . . **Dr. Paul V. Blusys** of Fort Wayne has been named medical director of the Northeastern Indiana Emergency Medical Services Regional Training and Coordination Center, Fort Wayne.

. . . **Dr. Jon E. Smucker** of Goshen has been named a Fellow of the American College of Surgeons.

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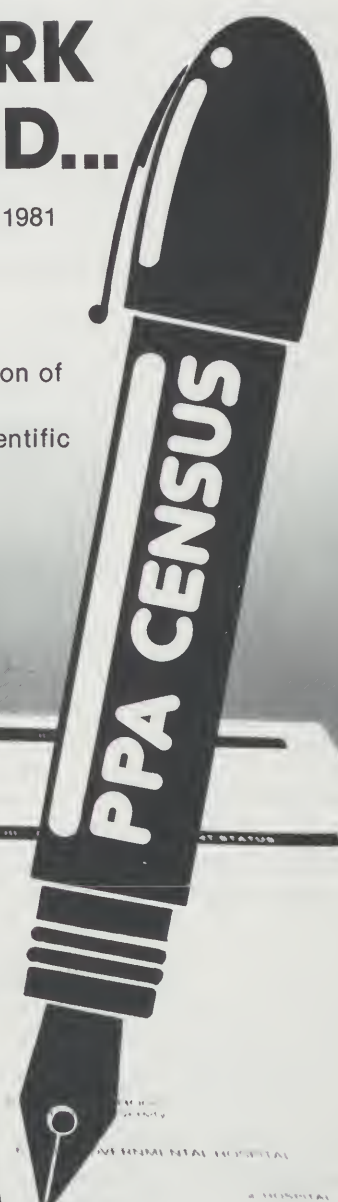
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2. How many hours per week do you spend in DIRECT CARE OF PATIENTS?

3. How many hours per week do you spend on ADMINISTRATIVE ACTIVITIES as a Hospital Staff Member or Executive?

4. How many hours per week do you spend on MEDICAL TEACHING?

5. How many hours per week do you spend on MEDICAL RESEARCH?

6. How many hours per week do you spend on other medical activities (not listed above) involving DIRECT CARE OF PATIENTS?

7. How many hours per week do you spend on OTHER MEDICAL ACTIVITIES (not listed above) not involving care of patients?

About how many hours per week do you spend in ALL PROFESSIONAL ACTIVITIES? For Residents, this is the total of questions 1, 6 and 7. For all other physicians this is the total of questions 2 - 7.

the TOTAL in question 8 above is 20 hours or less

8. Please answer question 9

9. U.S. Government

10. OTHER ORGANIZATION - N

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Physician Sued by Estate of ER Patient

A patient was entitled to a new trial of a malpractice claim against a physician who failed to inform himself of the results of X-rays taken of the IUD patient, an Indiana appellate court ruled.

The physician inserted a Dalkon Shield in the patient in February 1973, after he delivered her third child. The following April, she returned to him for an examination. He was unable to locate the IUD manually and ordered X-rays. Based on the X-ray reports, he told her the IUD was properly located.

In September 1973, he confirmed that she was again pregnant. He performed surgery on September 25, 1973, to remove the IUD and perform an abortion and a tubal ligation. However, he was unable to locate the IUD. He ordered X-rays immediately after surgery but then told the patient that the IUD was gone and not to worry.

For the next two years the patient complained about pain and discomfort. She was unable to continue working and was forced to quit her job.

Finally, on August 2, 1975, the patient was admitted to a university hospital, complaining of

extreme pain. X-rays were again taken. A resident who read these X-rays and those taken two years earlier noticed an IUD in peritoneal cavity on both sets of X-rays. The next day the physician operated and removed the IUD. The patient healed and progressed well.

In a malpractice suit a trial court granted a directed verdict in favor of the physician on the ground that it was not his duty to read the X-ray report, but the duty of the radiologist to inform him of any abnormalities. The appellate court reversed and remanded the case for a new trial. The court said that there was sufficient expert testimony to present a jury question on the negligence of the physician.

The expert witness testified that the physician had a duty to see if the IUD was in the peritoneal cavity. That testimony, plus the physician's admission that he did not inform himself of the contents of the X-ray reports, was sufficient to inform the jury of the applicable standard and the physician's breach of it, the court said. — *Killebrew v. Johnson*, 404 N.E.2d 1194 (Ind. Ct. of App., June 2, 1980)

Courtesy of *The Citation*, Oct. 1, 1980

OBITUARIES

Kenneth T. Knode, M.D.

Dr. Knode, 85, a South Bend pediatric allergist nearly 60 years, died Dec. 20 at Memorial Hospital, South Bend.

He was a 1920 graduate of the University of Michigan Medical School.

Dr. Knode, who once played shortstop for two years with the St. Louis Cardinals, was a past president of the St. Joseph County Medical Society. His memberships included the American Academy of Pediatrics, American College of Allergists, and the American Association for Clinical Immunologists and Allergists. He was certified by the American Board of Pediatrics. He had been a member of the ISMA Fifty Year Club since 1970.

Dan E. Talbott, M.D.

Dr. Talbott, 77, a retired Zionsville physician, died Dec. 9, at St. Vincent Hospital, Indianapolis.

He was a 1935 graduate of Indiana University School of Medicine and was a World War II Army Air Corps veteran. He retired from private practice in 1969.

Dr. Talbott served as plant physician at RCA from 1972 to 1977. He was a member of the American College of Obstetrics and Gynecology.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

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James O. Price, M.D.

Dr. Price, 64, a retired Indianapolis general surgeon, died Dec. 16 at his home.

He was a 1942 graduate of Indiana University School of Medicine. He served with the Army in Europe during World War II.

Dr. Price was medical director of the State Welfare Department from 1972 to 1978. He was a former chairman of the Marion County Health & Hospital Corp. and for many years was an examining physician for the Indiana State Police Department.

August L. Fipp, M.D.

Dr. Fipp, 80, a Rome City physician for 35 years, died Dec. 13 at his home in Fort Wayne, to which he moved five years ago.

He was a 1928 graduate of Northwestern University Medical School, Chicago.

Dr. Fipp was enrolled in the ISMA Fifty Year Club in 1978.

Charles M. Gingerick, M.D.

Dr. Gingerick, 74, a Liberty Center physician, died Dec. 12 at Wells Community Hospital, Bluffton.

He was a 1932 graduate of Indiana University School of Medicine and was a World War II veteran.

Dr. Gingerick practiced 44 years in Liberty Center and Uniondale and most recently at Wells Community Hospital. He was a member of the American Academy of Family Physicians.

Marion L. Connerley, M.D.

Dr. Connerley, 68, a Terre Haute surgeon, died Jan. 7 at Union Hospital, Terre Haute.

He was a 1937 graduate of Indiana University School of Medicine.

Dr. Connerley was certified by the American Board of Surgery and the American Board of Thoracic Surgery. His memberships included the American College of Surgeons, American College of Chest Physicians and the American Geriatrics Society.

Fred A. Thomas, M.D.

Dr. Thomas, 81, a retired Indianapolis anesthesiologist, died Jan. 4 in a nursing home.

He was a 1924 graduate of Indiana University School of Medicine. He was head of the anesthesiology department at St. Vincent Hospital from 1930 until 1954. He retired in 1970.

Dr. Thomas was a World War I veteran and a member of the ISMA's Fifty Year Club. He also was a member of the American Society of Anesthesiologists.

COMMERCIAL ANNOUNCEMENTS

OPPORTUNITIES FOR PHYSICIANS—

There are current openings among the Indiana State Hospitals at various locations in the State for psychiatrists and physicians of other specialties at most experience levels. The Hospitals offer a very competitive entry salary plus a generous package of fringe benefits. An adjunct practice is possible beyond the regular working hours and normal on-call responsibilities. Candidates must be licensable in Indiana. Please reply with a copy of the C.V. to: FORREST ASSOCIATES, P.O. Box 850, Murray, Ky. 42071 or call (collect): (502) 753-9772. FORREST is retained by the Indiana Department of Mental Health.

GROW WITH US IN SUNNY ARIZONA—

The INA Healthplan needs physicians in family practice and most specialties in Tucson and Phoenix. Competitive salaries and comprehensive benefits including a professional development program, retirement plan, and group incentive bonus are provided. If team interaction and casual living interest you, send your CV to: Professional Relations, INA Healthplan, Inc., 6115 North 7th Street, Phoenix, Ariz. 85014.

EMERGENCY MEDICINE position available: Emergency Physician to join professional group practicing in superior emergency department in Hammond, Indiana. Contact Dr. Robert F. Guthrie at (312) 474-0014 or Emergency Care, S.C. at (312) 327-0777.

FULLY EQUIPPED medical building for sale or rent. Located in Bunker Hill, Ind., near Kokomo. Address all inquiries to Ruben R. Gaboya, Estate, Box 577, Bunker Hill, Ind. 46914.

MADISON, INDIANA—Luxury office space, finished to your specifications, is now available for lease to physicians in the 606 Professional Building. If you have ever considered relocating to this beautiful, progressive community, please phone for more information. George McAtee, McAtee Management Company, 428 Jefferson St., Madison, Ind. 47250. Phone collect, (812) 265-6800.

VACATION HOMES FOR SALE—Two and three bedroom condominium vacation homes at The Pointe on Lake Monroe, a luxurious golfing community south of Bloomington. Excellent long or short term rental potential. May be purchased furnished or unfurnished. Low 40s to 70s. Call Belva Wilson at Owens, Bryan and Reed, Realtors, (812) 336-6888 or (812) 334-3194.

EMERGENCY MEDICINE Directorship:

Indiana—just 50 miles south of Chicago. Moderate volume, well-equipped emergency department in service area of 150,000+. Excellent pay with added compensation for Director's responsibilities. Paid professional liability insurance; flexible scheduling without on-call involvement. For details call Frank Siano toll-free at 1-800-325-3982 or send credentials in confidence to 970 Executive Parkway, St. Louis, Mo. 63141.

FOR LEASE: Office adjacent to hospital in growing medical community. Additions to 350-bed hospital and mental health unit now under construction. Vincennes, Indiana. Address inquiries to N. M. Welch, M.D., Rte 3, Box 17, Vincennes, Ind. 47591.

EXPERIENCED, Indiana-licensed physician, now practicing in Iowa, seeks family practice with general surgery in community of 3,000 to 10,000 population. Solo or partnership acceptable. Contact N. B. Patel, M.D., (515) 464-2963, Mon-Fri, 7-10 p.m.

IDEAL PRACTICE LOCATION: New Haven, Indiana (a suburb of Fort Wayne). Family Practice, Peds, etc., now leasing space in beautiful new East Allen Professional Park. Contact Dr. Wm. J. Daly, 1220 Lincoln Hwy E., New Haven, Ind. 46774 for details.

Locum Tenens—COMPHEALTH. Our medical group can place a well-qualified physician in your practice during your absence. For more information, call or write: Comprehensive Health Systems, Inc., 175 West Second South, Salt Lake City, Utah 84101. (801) 532-1200.

EMERGENCY MEDICINE PHYSICIANS

sought for modern, moderate volume trauma center with excellent specialty and subspecialty support located in the western portion of the state. This metropolitan community offers many educational, cultural, and recreational amenities. Annual minimum guarantee plus production-based bonus, paid professional liability insurance, flexible scheduling with no on-call responsibilities. For details, contact Frank Siano toll-free 1-800-325-3982.

Associate Medical Director

One of Chicagoland's largest manufacturing plants is seeking a physician for its staff.

This plant's Medical Department has a staff of four (4) physicians, including a director, participating in a comprehensive program of occupational medicine in a well equipped and modern medical facility. Opportunities for professional growth and advancement are excellent.

The Medical Department includes a fully staffed complex with an x-ray unit, laboratory and clinic facility. It has a full range of medical activities including traumatic preplacement and consulting services. It also includes an Occupational Hygiene Division having a comprehensive program for evaluation of environmental exposure.

An outstanding company paid fringe benefit package is included. Salary available is open depending upon the candidate's experience.

Normal working hours are 8:00 A.M. to 5:00 P.M. Monday thru Friday. A wide variety of desirable locations in which to live are available.

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WHAT'S NEW?

CONTINUED FROM PAGE 59

A **PERCUTANEOUS** tracheostomy instrument called the Pertrach will enable a physician or other trained person to perform a tracheostomy in 20 to 30 seconds. It was devised by a neurosurgeon and is safe and simple and virtually bloodless. A double needle is introduced into the trachea while fixed to a syringe. After aspiration of air, the inner needle and syringe are removed and a flexible leader followed by a dilator and the tracheostomy tube is introduced into the needle tract.

PRENTICE-HALL announces *Incorporating the Professional Practice, Second Edition* (1978), with a special 1980 supplement, by George E. Ray. The book has been very popular (First Edition sold 27,000 copies). The author is a leading authority on professional corporations. \$32.95.

ROBERT J. BRADY COMPANY has released the American Diabetes Association publication *Diabetes Mellitus, Vol. V*. It is edited by Harold Rifkin, M.D., and Philip Raskin, M.D., and comprises an up-to-date review of the state of the art in diabetes. Sixty-seven of the top-flight experts in diabetes contribute to the volume. 393 pages, \$22.95.

DOUBLEDAY has released *Human Possibilities* by Stanley Krippner. It is a first-person account of new experimentation and astounding breakthroughs in mind exploration in the Soviet Union and Eastern Europe. Krippner traces the practical application of these new fields in medicine, sports, education and the development of humanity's potentials. 360 pages, \$14.95.

ANCHOR PRESS has released *Sex by Prescription* by Thomas Szasz, a noted psychoanalyst. The author criticizes the emphasis which sexual behavior receives in present day society, views with alarm most of the sex therapy, and disagrees definitely with Masters and Johnson. His designation for some of the people who are prominent in sex therapy is "pseudo-scientists." "Charlatan" is his word for some of the therapists. 216 pages, \$10.95.

HARPER & ROW has a new reference book on words. It is a compendium of derivations, and contains stories, legends, facts and fallacies about the words that are used every day. *Browser's Dictionary*, a compendium of curious expressions and intriguing facts, consists of 460 pages and sells for \$16.95.

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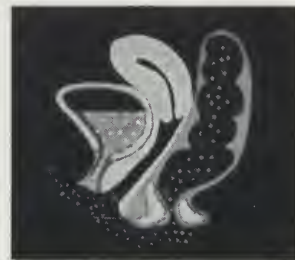
ROCHE

For recurrent attacks of urinary tract infection in women

BactrimTM DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice

- Convenient b.i.d. dosage provides day-and-night antibacterial control

- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (Federal Register, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the BactrimTM 3-system counterattack



Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of

Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

J0931L

March 1981 • Vol. 74 • No. 3

The JOURNAL

of the **INDIANA**
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Inside: Medical Anti-Shock Trousers

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche)® , please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

ROCHE

Roche Laboratories
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Nutley, New Jersey 07110

WHAT'S NEW?

PIXONIC CORPORATION has a newly patented electronic alert which signals when a continuous intravenous is about to run out. The alert is lightweight and plugs into the sterile I.V. set and can be used over and over again. It supplies both a visual and audio signal, and is of solid state construction for high reliability and long life.

HEWLETT-PACKARD has a new electrocardiograph that records the tracings on standard size paper. The HP 4700 "PageWriter" is lightweight and produces a high quality trace that surpasses traditional methods in accuracy, fidelity and repeatability. The resulting 8½x11 page is easy to read, handle, store and interpret.

CENTURY MANUFACTURING is offering a newly designed patient lifting system for lifting and transferring physically impaired persons. The patient is secured into a sitting position for easy transfer from bed to wheelchair utilizing a patented lifting belt, which does not have to be placed under the patient. Lifting range is 16 inches, weight limit is 350. Operates with a hand-operated winding crank that requires little effort. Rolls on casters, which can be locked.

APEX MEDICAL SUPPLY is introducing a pill organizer and dispenser. It has 28 large capacity, individually opened compartments. It will hold a week's supply of four-times-daily medication. The name is Apex MEDIPLANNER™. Each individual lid is designated in raised letters as to days of the week and up to four medicine-taking times for each day. The designations also appear in Braille markings. The lids are white, and the bases are green-blue with an alternative of electric pink for the sight-impaired.

CUTTER LABORATORIES announces FDA approval to market Intralipid® 20% IV Fat Emulsion. It is an emulsion of soybean oil and egg yolk phospholipids, formulated to resemble the tiny fat globules called chylomicrons that are absorbed from the digestive tract into the bloodstream after a normal meal. One thousand calories can be supplied in a volume of one-half liter. The product was developed in Sweden in the early 1960s and has been utilized to support millions of patients in Europe since then.

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News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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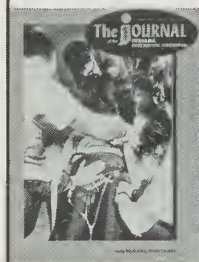
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ABOUT THE COVER

The Indiana Emergency Medical Services Commission will require all ambulances in the state to carry Medical Anti-Shock Trousers (MAST) after July 1. An article explaining the uses and abuses of the MAST, which cost about \$350, begins on Page 148. PHOTO BY ROBERT C. BIEHN, WISHARD MEMORIAL HOSPITAL.



MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis

Dr. Alvin J. Haley, ISMA president, suggested that the Auxiliary consider the Museum project as one focus of its attention. In response to Dr. Haley's request, several Auxiliary members visited the Museum Jan. 13 and gained first-hand experience with the project.

The first part of the Auxiliary's Museum program was an informal lecture in the amphitheater (the only room that is yet restored to its original condition).

The ladies then saw the room designated as the "Anatomical and Pathological Museum," which is currently being restored. (The ISMA's voluntary \$2 contributions for 1980 and 1981 are being used to achieve this restoration.)

In the entrance vestibule the members signed the log book, being among the first of the approximately 600 people who will visit the Museum this year.

The Auxiliary members then made a quick tour of the building to see the chemical, histology, and bacteriology laboratories. All of these rooms contain turn-of-the-century equipment, but none has yet been restored.

The doctors' wives also saw the large collection of physician's instruments, many of which are filed away in drawers awaiting identification; in the library, they saw the collection of 19th and early 20th century medical books, including the developing collection of *Transactions of the Indiana State Medical Society*.

How can the Auxiliary help with the Museum? That is what the Auxiliary members want to know and why as a group they came to inquire, to get an initial grasp of the problem. Was it a fruitful visit? The smiling faces, the numerous questions, and the genuine interest shown by all of the members indicate that it was.



From left, front row: Mrs. D. W. Shuster, Indianapolis, Auxiliary liaison to the Medical Museum; Mrs. G. W. Irwin, Indianapolis, president-elect; Mrs. M. E. Priddy, Fort Wayne, chairman of legislation committee; Mrs. E. E. Bickers, Floyds Knobs, IMPAC; Mrs. R. M. Schleinkofer, Fort Wayne, treasurer; and Mrs. D. L. Dunlap, South Bend, corresponding secretary. From left, back row: Mrs. F. B. Throop, Indianapolis, chairman of program books committee; Mrs. D. A. Goldsmith, Marion, chaplain; Mrs. D. F. Wehlage, South Bend, editor of "Hoosier Medical Auxiliary"; Mrs. F. Mackel, Fort Wayne, AMA-ERF; Mrs. G. B. Gattman, Elkhart, parliamentarian; and Mrs. A. P. Bennett, Evansville, immediate past president.



From left, Mrs. Shuster; Mrs. H. A. Schiller, South Bend, president; Dr. Bonsett; Mrs. Schleinkofer; and Mrs. Irwin.



From left, Mrs. I. H. Stone Jr., New Albany, first vice president; Mrs. Gattman; Mrs. Dunlap; and Mrs. Schleinkofer.

EDITORIALS

Second Opinions: Good or Bad?

Mandatory second opinions have been around long enough to produce evidence of their cost and effect.

Governmental bureaus and some medical insurance companies originally championed second opinions and, in some cases, made them compulsory in order to diminish the number of surgical operations. The idea was to save money.

Second opinions were paid for by the insurance or by the government only in instances in which an operation or relatively expensive medical treatment was recommended in the first place. If the first opinion was "operation not indicated" no one offered to pay for a second opinion, although, if the good of the patient was the prime consideration, second opinions would be universal. There can be no doubt that the "second opinion deal" was set up to save money and not to benefit the patient.

We are now far enough down the road to know that such deals do not cost less—they cost more. Blue Cross and Blue Shield of Greater New York reports that second opinions and the repeated and often more extensive clinical studies evidently convinced enough patients who might not have followed the first opinion to

proceed with the proper operation.

All of which, of course, costs a little more but is probably a good thing. A second opinion, if desired by the patient or by the first physician, is one of the greatest items in the practice of medicine. It is now evident that the same careful and conscientious attention governs second opinions as is commonplace with the primary physician.

The Wall Street Journal, in commenting editorially on second opinions, agrees with the above conclusion and also states: "The issue of elective surgery, and what constitutes a 'necessary' or prudent operation, is a much more complicated matter than the health planners have the objective criteria to decide for us. On this as on other regulatory matters, one clear lesson is to slow down before acting on the assumption that the private institutions of this country are giving a citizenry such a bad shake."

Low Chloride Infant Formulas Linked to Health Hazards

Some of the babies who were fed on Neo-Mull-Soy[®] or CHO-free[®] in 1978 and 1979 developed hypochloremic metabolic alkalosis due to the low sodium chloride content of the two formulas. The formulas were removed from the market. Infants who received either of the formulas but who did not develop symptoms are unlikely to have long-term problems due to the formulas.

However, the American Academy of Pediatrics advises that parents of children who have had symptoms of alkalosis and possibly those who were on the two formulas should consult their pediatrician.

Saccharin Human Use Studies

The Calorie Control Council has issued a brochure regarding human use studies of saccharin. Twelve authoritative studies are reported, three of which are recent. All reports agree that there has never been any association demonstrated between the use of saccharin and cancer of the bladder.

It is evident that, since the introduction of saccharin, diabetic patients have been the one group that has utilized the artificial sweetener the most persistently and probably in the largest amounts per patient. At the same time the diabetic patients have been the one group that has enjoyed the most careful, long-standing, and almost universal medical care. No one has been able to demonstrate any difference between the incidence of bladder malignancy in diabetics and in non-diabetics.



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ISMA Officers, Trustees
Page 187

The Cost of Developing New Drugs

Increasingly, profits no longer repay the research and development costs of drug development.

This is the conclusion made by John R. Virts of Eli Lilly and Company and J. Fred Weston of the University of California at Los Angeles after a study they conducted into the problems of new drug discovery.

Traditionally, it has been customary for pharmaceutical manufacturers to finance the research, development and certification of new drugs from profits. The main reason, and probably the only reason, this is customary is that profit is the only source for such activity.

In the United States, the pharmaceutical industry is unique in its record of spending large amounts of its own money for research and development. In fact, it leads all other industries in this regard.

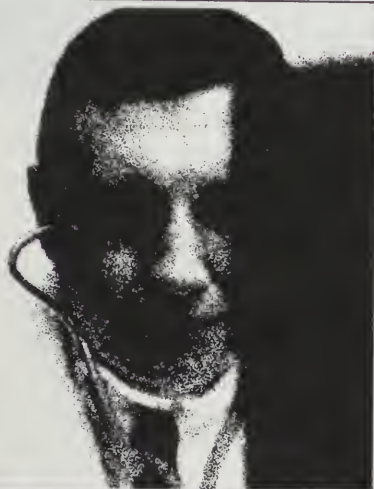
Financial reports almost always indicate rather generous profits for research-oriented drug firms. One reason for this is that only the remaining and successful firms are the subject of such reporting. Another is that accounting practices treat investment in research and development as current spending. This means that the investment base for research-oriented pharmaceutical companies is understated. Actually, real return on investment for research-oriented pharmaceutical compa-

nies is not out of line with other corporations when the great differences in the amounts of self-financed research costs are considered.

A report of the study by Virts and Weston was published recently in the authoritative *Managerial and Decision Economics* journal of London. The authors reported that the average revenues on 119 new chemical entities introduced in the U.S. between 1967 and 1976 for the typical "base case" drug compound, "on the average, would not represent adequate revenues for research and development investments to earn the cost of capital."

And, to quote the "Newsletter of the Pharmaceutical Manufacturers Association": "Virts and Weston also found that as fewer new chemical entities have been approved, there has been a decline in the number of independent companies achieving new chemical entity marketing and a gradual decline in the research and development intensity, in real terms, of manufacturers generally."

The same quotation goes further: "Research and development has tended to shift from smaller to larger firms and from the U.S. to other developed countries. Innovation and sales have shifted from U.S.-owned to foreign-owned firms—and within the firms, a diversity away from pharmaceuticals has occurred."



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Reagan and Pharmacy: A Look at the Future

Guest Editorial

PRESIDENT REAGAN has committed himself and his newly appointed staff to reducing the burden of government on private industry. We hope the drug industry receives some help from

J. LEO McMAHON, J.D.
Editor
Action in Pharmacy

the new executive team in the coming years. Similarly, if the retailing and wholesaling segment can get some relief from the burgeoning government regulations, it will be quite a present for the new year.

No one denies that some kind of regulation of drug industry is necessary and even highly desirable. But the current burden of government-mandated programs has become so great that many people are wondering if the net result of all these, in fact, is counter productive.

President Reagan can assist the industry by asking the FDA to streamline its new drug approval process. Furthermore, he should insist that the FDA protect the rights of the drug innovators by not accepting paper New Drug Applications. The federal government, on the other hand, should encourage the competition within the industry to find more chemicals and biologicals in the treatment of illness.

A substantial portion of the drug industry's budget is being spent in satisfying the ever-increasing regulatory demands of the government bureaus and agencies. This situation has got to be reversed if the industry is to generate capital

Reprinted courtesy of *Action in Pharmacy*, Kansas City, Mo., January 1981.

for research and plant improvements. The millions and billions now being spent on paper shuffling could be utilized much more effectively in enhancing the productivity of the industry.

From a retail point of view, the MAC program should be scrapped. We have always opposed this kind of government meddling into the affairs of a small business. We wonder if the MAC program is cost effective for the government; but even if it is, recent surveys reveal that it is far more burdensome for the retailer. A recent study in Ohio has indicated that retail pharmacies lose money on MAC products. State-mandated formularies are enough of a burden already—we don't see any need to retain the MAC program. We hope Secretary Schweiker will listen to our pleas and the small retailer's pleas in this respect.

The PPI should be abandoned. We see no need for it except it adds to the costs. We believe that such programs impinge upon the professional freedom of the pharmacists and there is no reason why they need our support. If patients need information, we are here to supply the same.

We can go on and on in listing the woes of private industry, but suffice to say, we hope the new administration listens to our pleas and assists us in our survival and growth plans. If the independent drug stores have to follow the fate of independent grocers, we certainly do not need any meddling from the government.

But it is our opinion that independent practice of pharmacy is here to stay—survive and grow—and if we get an assist from the government in overcoming the current hard times, we will be able to flourish.



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Endoscopy in Upper GI Bleeding

Consensus Report

The following is an abstract of a report of a Health Consensus Development Conference held at the National Institutes of Health, Aug. 20-22, 1980.

It is estimated that approximately 115 patients per 100,000 population are hospitalized annually for upper GI bleeding. This amounts to about 250,000 admissions per year. Mortality of such bleeding is close to 10%. This rate has been essentially unchanged for several years in spite of improvement in diagnosis and treatment.

Upper GI endoscopy is a rapidly evolving technique. Its use has increased rapidly. Doubts are expressed as to whether it is utilized too often or not often enough, whether it is too expensive, and whether the expense is warranted by improvement in coping with the problem.

Diagnostic accuracy of GI endoscopy depends on the skill and experience of the endoscopist and the adequacy of facilities, equipment and supporting personnel.

A well trained endoscopist can, in the majority of circumstances, locate the bleeding lesion. And, if more than one potential bleeding lesion exists, he can identify the one responsible for most of the bleeding.

The Consensus Development Conference considered evidence and answered the following questions:

1. What are the benefits of endoscopy in upper GI bleeding?

Preoperative knowledge of the exact lesion enhances placement of the appropriate incision, increases the rapidity and smoothness of the operation, and averts the need for unnecessary intraoperative maneuvers which might increase morbidity and mortality. Precise diagnosis prevents operating on such lesions as esophageal varices and diffuse erosive gastritis for which operation is of little avail.

On the other hand, it has not been clearly demonstrated that such precise knowledge will reduce

mortality and morbidity. Carefully controlled studies in this area are urgently needed.

2. What is the place of other diagnostic approaches to upper GI bleeding?

Single contrast upper GI radiography is one-half as accurate as endoscopy in identifying upper GI lesions. Expertly performed double contrast techniques approach the accuracy of endoscopy.

Disadvantages of barium studies include obscuring the field for endoscopy or angiography, creating difficulties in an uncooperative patient, causing inaccurate diagnosis in the presence of blood clots, and repeated exposure of the patient to radiation.

Angiography is generally not as accurate as endoscopy. It rarely identifies bleeding unless blood loss is 0.5 cc/min or greater. The best indication for angiography is a situation in which intra-arterial therapy is likely to be effective.

Radionuclide scanning with technetium sulfur-colloid or tagged red blood cells is a promising noninvasive screening technique for the localization of GI bleeding; this requires further evaluation.

3. What are the considerations in the decision whether to perform endoscopy?

All relevant clinical factors, including severity of the hemorrhage, should be assessed. Endoscopy is not indicated in all cases. Differences in expertise of endoscopists and radiologists must be considered. Continuous or recurrent bleeding in the absence of a clear-cut diagnosis is usually a strong indication for endoscopy.

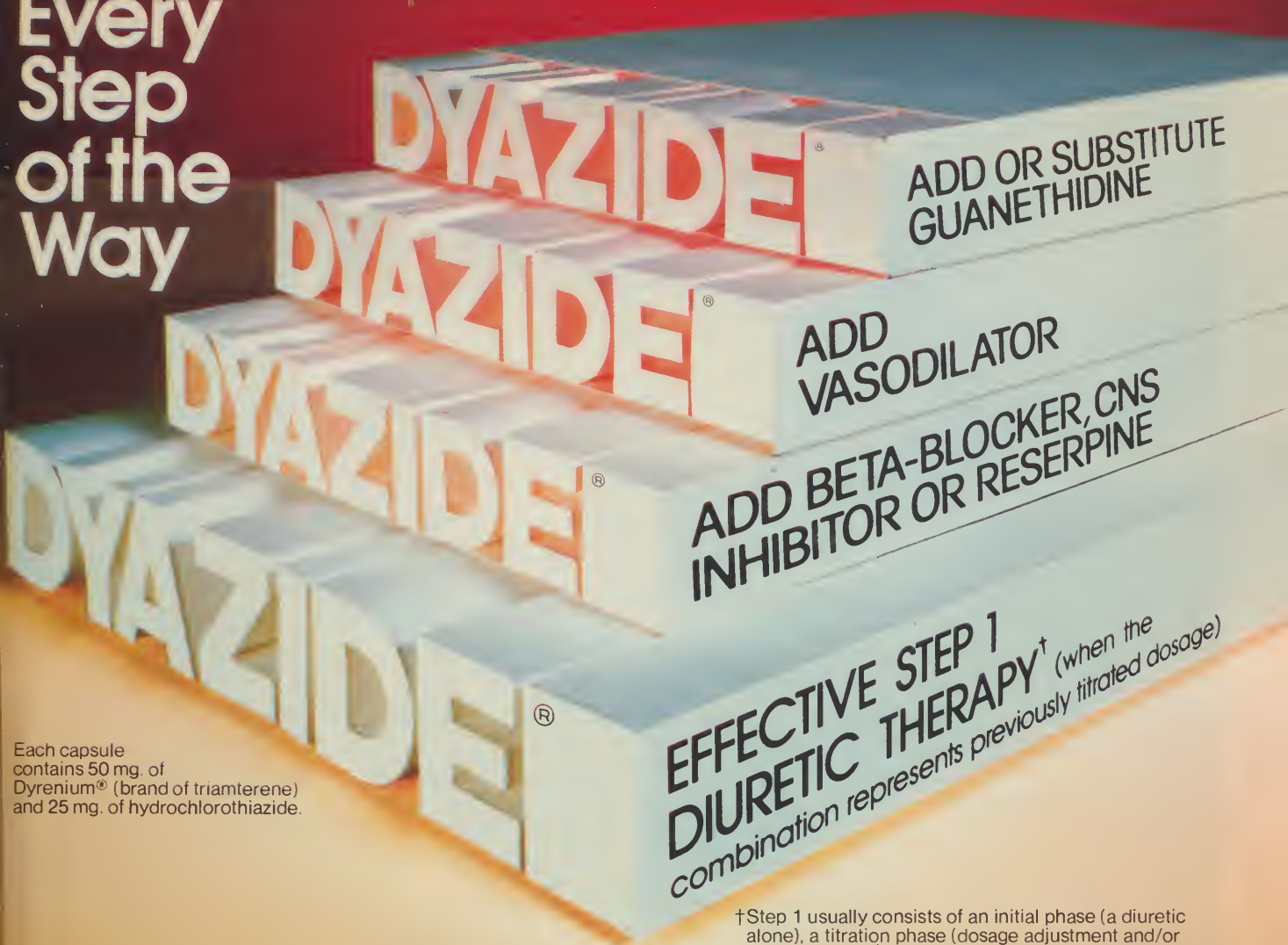
4. What are the risks of endoscopy in the bleeding patient?

Complications are rare but are more common in patients with actual or potential heart, lung, renal and liver diseases and in patients on immunosuppressive regimens. Complications of endoscopy when done in an emergency are increased over those to be expected when the procedure is done electively.

In spite of the increased diagnostic accuracy of endoscopy, its high cost is an impediment to abandoning conventional investigation of upper GI hemorrhage with contrast radiography. This is especially true since the increased diagnostic information obtained from endoscopy has not resulted in definitively improving mortality.

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[†]Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent) and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, throm-

bocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with

possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

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Colleges shouldn't have to choose between lighting their buildings and enlightening their students.

—Thomas Edison
Inventor

There's nothing more frustrating for a scientist than to be on the verge of a great discovery and not be able to afford the equipment he needs. I know.

When I was a boy, I had to work overtime to get the money I needed for equipment. But somehow I eventually got what I had to have for my experiments.

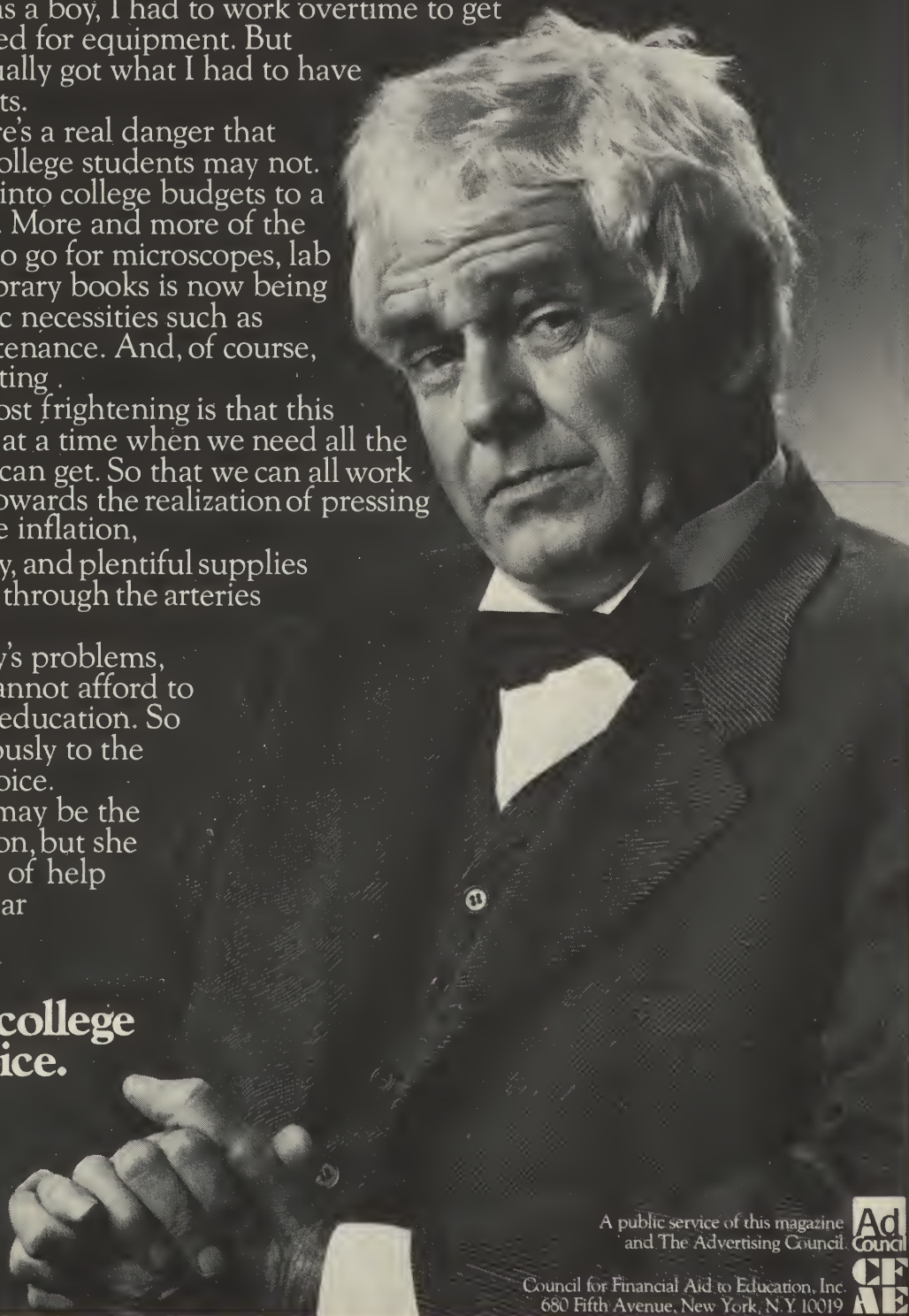
Today there's a real danger that many American college students may not. Inflation is eating into college budgets to a dangerous degree. More and more of the money that used to go for microscopes, lab equipment and library books is now being consumed by basic necessities such as heating and maintenance. And, of course, my specialty—lighting.

What is most frightening is that this squeeze is coming at a time when we need all the trained minds we can get. So that we can all work more effectively towards the realization of pressing goals: manageable inflation, revitalized industry, and plentiful supplies of energy coursing through the arteries of this country.

With today's problems, America simply cannot afford to have second-best education. So please give generously to the college of your choice.

Necessity may be the mother of invention, but she needs a great deal of help if she's going to bear children.

Help!
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Kenneth W. Bush
Asst. Executive Director

KENNETH BUSH has been with the Association 21 years and has been its assistant executive director since 1976.

Ken is a veteran of World War II who served in France as an infantry officer, earning the Combat Infantryman's Badge, the Purple Heart and three battle stars. After the war, he earned a bachelor's degree in journalism from Butler University and joined the Indianapolis Times as a reporter.

In 1951 he became director of field services for the Indiana Tuberculosis Association but left them three years later to join the ISMA as "field secretary." In 1957 he joined the Indiana Heart Association as its public relations director and eventually became its executive director. Finally, in 1963, he returned to the ISMA and has been on board ever since.

Ken works closely with the executive director, executive committee, the board of trustees and the AMA delegation. He is the staff action officer for convention arrangements, functions as staff personnel manager, coordinates budget requirements, and supervises building and grounds maintenance.

Active in community affairs, Ken directed the Indianapolis Press Club's Gridiron Show in 1968; at the moment, he's chairman of the finance committee for the 100th anniversary celebration of the State Board of Health. He is a former president of the Indiana Public Health Association and is a former president of the Tech High School Alumni Association.

Ken, who was named a Sagamore of the Wabash by former Governor Otis R. Bowen, is a member of the Presidents' Club of Butler University, the American Security Council, the American Association of Medical Society Executives (AAMSE), and the Reserve Officers Association. He enjoys boating, swimming, fishing, history, and is an ardent football fan.

He and his wife Betty live in Greenwood.

Meet Your ISMA Staff



Beckett Shady
Sr. Administrative Assistant

BECKETT SHADY handles a wide range of special projects in addition to her primary responsibility as assistant to the ISMA assistant executive director, Ken Bush.

Beckett joined the Association in 1973. Since then she has become particularly well known to physicians attending the annual convention because her main function at that time is to supervise final preparation of Reference Committee reports.

She remains in contact with the membership during the year through other projects. Beckett, who personally enjoys vacation travel, administers all ISMA organized travel programs. She coordinates the membership of commissions and committees and provides staff support for the Future Planning Committee, the Subcommittee on Accreditation, and the Commissions on Medical Education, Constitution and Bylaws and Convention Arrangements.

Beckett serves as staff director of continuing medical education, a job that entails assisting in the accreditation process of all Indiana institutions and specialty organizations for AMA Category 1 continuing medical education. Somehow she also finds time to function as executive director of the Indiana Association of Directors of Medical Education.

A native of Arcadia, Beckett now lives in Cicero with her daughters, Michelle and Kelle.

A New Surgical Educational Venture

Guest Editorial

A NEW POSTGRADUATE surgical educational event will be inaugurated April 20-21 when Professor Maurice Mercadier, distinguished French surgeon, will be in Indianapolis to lecture, discuss cases and visit with those in attendance. This is the first of an annual program which The Joseph C. Finneran, M.D. Surgical Educational Endowment Fund plans to sponsor.

HARRIS B SHUMACKER, JR., M.D.
Indianapolis

Doctor Mercadier holds his professorship in the Parisian Faculty of Medicine. He serves as Chief of the Surgical Service in the American Hospital of Paris as well as being head of the General Surgical Service in l'Hôpital de la Pitié. He is also an Honorary Professor in the Universities of Buenos Aires and la Plata. A prominent member of numerous surgical and gastroenterological societies in France, Great Britain, South Africa, Argentina, Brazil, Chile, Italy, Belgium, Switzerland, and Portugal, he is, in addition, an Honorary Member of the American Surgical Association, the American College of Surgeons, the Society for Surgery of the Alimentary Tract, the Academy of Medicine of New York and the Royal Society of Medicine.

Professor Mercadier has been made an officer both of the Legion of Honor and the National Order of Merit. Currently, he is president of the International Surgical Society. Many the world over regard him as the most eminent of all French general surgeons. He has a most pleasant personality, a great sense of humor, speaks effectively in an easily understood and direct manner. Those who meet him will be pleased to have become acquainted with one of our most *agréable* confreres from abroad.

Though the Committee has not completed the details of the program, the broad outlines have

been formulated. They will include a morning session April 20 at St. Vincent Hospital and Health Care Center devoted to informal discussion of cases presented—cases related to surgical problems involving the liver, biliary passages and pancreas and to other important general surgical topics. There will be an afternoon session at the Wishard Memorial Auditorium of a somewhat similar nature, followed by a spontaneous and unrehearsed audio-visual recording of conversations between Professor Mercadier, the Chairman of Indiana University's Department of Surgery, and the Chairman of the Finneran Committee—a recording which subsequently will be available to all institutions. There will be a formal lecture at St. Vincent Hospital and Health Care Center at 8 a.m., April 21, after which case presentations and comments will continue until noon. A subscription dinner will be held the night of April 20. All physicians and surgeons, including those in training, are cordially invited to the entire program.

The Finneran Endowment Fund was established upon the occasion of Doctor Finneran's becoming full-time Chief of the Surgical Service at St. Vincent Hospital and Health Care Center after many devoted and effective years of filling this responsibility on a voluntary basis. The funds are held in the St. Vincent Foundation and only the income is to be used for the annual educational affairs, the capital to be kept intact. The Committee hopes the fund will grow in size as friends of Doctor Finneran make further contributions to the St. Vincent Foundation for this purpose and that its activities can, as a consequence, be expanded from year to year. The purposes of the Endowment Fund are defined in such a way that no future committee will ever find itself restricted, but will be free to carry out innovative and helpful efforts for the benefit of the doctors of Indiana.

It is most appropriate that this memorial was set up to perpetuate the memory of one of our most beloved and highly respected surgeons prior to his untimely death on Good Friday, 1980.

Following his education at Harvard and at the

From the Department of Surgery, Indiana University Medical Center and St. Vincent Hospital and Health Care Center, Indianapolis.

Johns Hopkins University School of Medicine from which he graduated with high honors and membership in Phi Beta Kappa and Alpha Omega Alpha, he secured a surgical internship at Hopkins. During this year, 1947-1948, he arranged to come to Yale University the next year to work with me. Shortly after this agreement was reached, I was offered and accepted the Chair of Surgery at Indiana University and immediately gave him the choice of proceeding to Yale as planned or coming to Indiana with me. Fortunately for this state, he elected to come to Indianapolis for completion of his surgical training. He immediately became a real Hoosier and was so regarded by everyone, despite the retention of his distinctive native New England accent.

After his training period, which was interrupted by two years of service in the U.S. Army, partly in Germany and partly in the States, he occupied a full-time academic position as Surgical Chief in the Veteran's Administration Hospital. He proved to be a good administrator, a highly respected teacher and participant in the training program for young surgeons, and, in addition, carried out interesting experimental studies. It became evident, however, that he could make his primary contribution in community practice rather than in institutional work and this he began in 1956. He had hardly embarked upon his rapidly

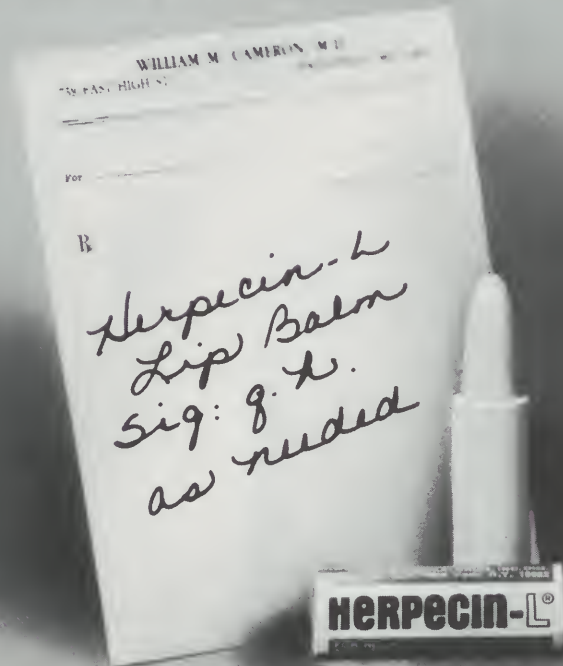
growing, skillful, compassionate work in general and thoracic surgery when, in 1957, he became Chief of the Surgical Section at St. Vincent Hospital. This post he filled with distinction and loyalty until his last days.

He remained a strong supporter of Indiana University and was for many years on its important Admissions Committee and the Indiana University—St. Vincent Hospital Liaison Committee. He was always considered an inspiring and helpful teacher. Among his other activities were those associated with membership on the board of directors of the Marion County Medical Society and its vice-president, as secretary and as president of the Indiana Chapter of the American College of Surgeons and, during the last four years of his life, as a governor of the American College of Surgeons.

His death was a deep loss to his family, his church, his many friends, his patients and their families and the entire community. His expert professional care, his sympathetic, kindly advice, and his winning Irish wit and humor will never be forgotten.

All are delighted that he will be honored each year by an excellent program devoted to the surgical advancement of the doctors of this state under the sponsorship of the Educational Fund established in his name.

Dx: recurrent herpes labialis



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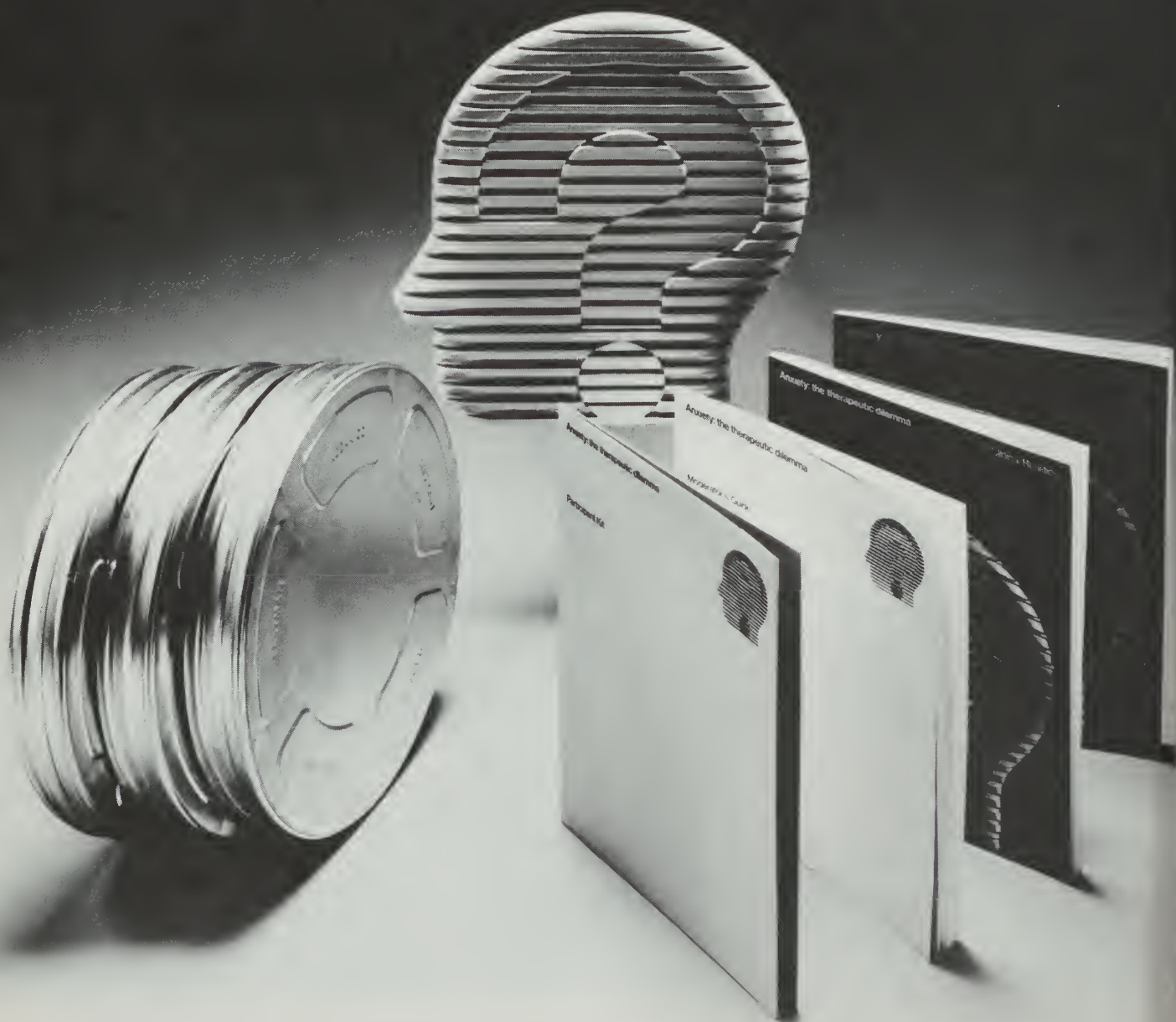
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Dividing Income in a Group Practice

Medical Practice Management

VASILIOS J. KALOGREDIS, J.D.
GEOFFREY T. ANDERS, J.D.

The authors take a detailed look at some basic approaches to the touchy question of dividing income in a group practice—before it becomes a problem that can grow into a dispute.

THE MOST ENDURING problem of group practices is how much income should be distributed among the group members. We are convinced that inability to cut up the “money pie” satisfactorily causes more dissension and dissolution in medical groups than all other factors combined. The effect often develops slowly. But if a segment of the group feels that it is underpaid the dissatisfaction tends to grow until it threatens the group’s continuation.

There are many critics of our present health care system who believe most doctors are particularly money-oriented. We disagree. Physicians tend to be highly intelligent and professional people with an inordinate amount of pride and self-reliance. The natural result is an unusually well developed ego.

In light of this, compensation often rises above its importance as mere money. Instead it becomes a measure of relative personal worth and importance to the group. It is unfortunate that relative incomes can so easily be compared and take on importance far in excess of what the earners really are contributing. However, the situation is common. Hence, dividing group income involves matters of personal ego as well as economics. This makes it an extremely touchy problem in group practice.

The Basic Alternatives. There are two basic income division alternatives: 1) straight percentage division, and 2) productivity division. Both have advantages and disadvantages which should be recognized. The method a group chooses could be either pure system or any combination of them. If a special formula is developed, it should be fairly simple to understand and easy to administer. A highly complex formula tends to cause artificiality and confusion, thus defeating the formula’s presumed incentives.

Straight Percentage Division. The simplest of all methods is for the participants to divide the income from their efforts equally. Other groups divide income in fixed percentages which are not equal, perhaps in recognition of seniority, time involvement, special training, etc. In either case, distribution of income is in a predetermined, fixed ratio—a straight percentage division.

A percentage method has the advantage of offering the doctor-members a group incentive. Each member will prosper so long as the venture produces sufficient income, regardless of which individual doctor actually performed the work. Hence, the doctor-members should feel free to have patients treated by various

doctors in the group for advantages in scheduling, special experience and the like. OB-GYN specialists, for instance, can see their patients alternatively or as they consider most useful and can assign deliveries according to their working schedules without concern of any adverse income effects. Other specialty surgeons in joint practice can set their operating schedules for most efficient use of their members' time and talents. Similarly, one man's contributions to administering the office or performing other "non-chargeable" functions will not penalize him as opposed to his partner who is seeing more patients at the time.

Percentage division tends to encourage a cooperative effort for the good of the group. It minimizes competition among the members since there is no direct financial reward for seeing more of the group's patients, producing more of its billings, etc.

Arbitrary percentage distributions generally work satisfactorily in groups having strong common denominators of age, work motivation and professional qualifications. They particularly work well when the potential income is high enough to defeat most desires to compete for more of the available income. Particularly likely to use simple divisions satisfactorily are those practices which involve the most patient interchange, as in obstetrics. The method has the advantages of being simple in concept and easy to administer. For these reasons it is by far the easiest way to resolve the income division problem.

Unfortunately, the various members of a group rarely make equal contributions to the group's financial success. So long as the differences are small, the members may overlook them. However, as these differences become larger and continue to exist, they will tend to be-

come divisive factors. For instance, one doctor may be taking more vacations or devoting himself to more non-cash producing professional activities (teaching, society work, etc.), while the other doctor is seeing more and more of the patients. One doctor may be increasing his efficiency, while the other doctor tends to spend more time with each patient. Regardless of which doctor is "right" in his approaches to his work, the differences tend to grow. As the differences continue, the disadvantage of a straight percentage division method becomes more evident.

Productivity Division. Another approach is to compensate each doctor in direct proportion to the amount he has contributed to the group's income. The common measure of such contribution is the amount of fee charges recorded on the group's books. Hence, if a two-man partnership has net income (after expenses) of \$100,000 and the books show that Dr. A's charges during the year totaled 58% of the total, then he would be entitled to \$58,000 of compensation. If in the succeeding year Dr. A. reduced his activity and produced a lesser share of the total charges, his share of that year's income would be proportionately less.

Besides rewarding a member for his financial contribution, a productivity division has the additional advantage of being self-adjusting. A partner's share of his group's income will thus vary from year to year just as his efforts may vary. This is often most helpful in the situation where a senior physician wishes to cut down his practice involvement (more vacations, fewer days per week, less coverage time, fewer hours per day, etc.). This often is a difficult subject for either side to bring up for discussion. The senior may be afraid to ask for the time off. The junior may hesitate to

complain if the senior takes more time.

Even if it is discussed, such lessened responsibilities are difficult to measure in dollar terms. Often, both sides feel cheated by the selection of a relatively arbitrary "make up" figure. Also, as the senior continues to cut back, a new "negotiation" as to the proper figure results.

The "production" method would help to reflect such cutbacks. A method that permits adjustment without the confrontation can thus be invaluable.

The majority of medical management consultants, ourselves included, prefer income division methods based at least in part on productivity. However, it should be recognized that such methods also have disadvantages. The prime problem is that it can create a competition among partners for the available work. It thus tends to reward one for creating dollars while ignoring one's other, less measurable, contributions to the group. The senior physician, for example, whose hospital and professional activity create referrals performed by his junior partners would not be recognized for his contribution. Nor would the managing partner of a medium-sized group who spends a large percentage of his time assuring that the joint practice runs smoothly and efficiently.

Productivity division also requires careful bookkeeping of patient charges. This is not really a disadvantage; any practice should have this information, whether or not it is required for income division purposes. The group's total charges for a period are an indication of how busy it was. They are also a means of predicting how much cash will be received in a succeeding period (when the charges have been billed and payments are received). Furthermore, a group should record its members' relative

production even if they share income otherwise, for only by having the information can the members recognize changes or inequities before too much dissention develops. Sometimes a group may be surprised by the figures.

Combined Methods. A combination of the two described methods is often the most equitable result. The group practice might thus obtain the strongest advantages of each method and offer more realistic incentives to its partners.

The simplest example of a group's combining the percentage and productivity methods would be one often recommended by advisors. Half of the net income of the practice would be divided among its partners equally (or in some other pre-determined percentages) and the other half would be divided in the ratio of the members' actual charges. In this manner, each partner has a strong incentive to make the overall group as successful as possible (regardless of which partner actually sees more patients) and he also has a personal incentive to produce. Since both group loyalty and individual ambition should be well accepted and desirable attributes, the formula combining incentives for each should be a workable solution.

Variations on the 50-50 combinations are limitless. We have several group practice clients, for instance, who equally divide 60% of their income and then allocate the other 40% according to productivity. This is simply based on their recognition that the entity's success deserves somewhat more emphasis than does the personal advantage. Other practices have gone the opposite way after analyzing the characteristics of their specialties, the "market" for their services and, of course, their members' personalities.

A small practice (two or three

partners) is likely to find a simple combination method to work very well. As the group becomes larger, the formulas tend to become more sophisticated.

Point Value Systems. Larger and often multiple specialty oriented groups sometimes extend the combination approach still further by adopting a "point value system." Such a system is intended to measure precisely the total contributions all members make to the group's success, going beyond the comparatively simple concept of production. Thus, a point system might give credit for such items as educational and professional society activity, contribution of capital to the partnership, hospital staff leadership, age or years of practice, office management responsibility, certification, work production, "drawing power," etc.

The elements of a point system are simple to describe. The various criteria adopted by the group are simply assigned "points," and then each member's points are totaled for the year. Income of the group for that year simply is divided among the members in the same ratio as his points bear to the total of all members' points. Under an illustrative method, one point might be awarded for each \$100 of charges produced, 10 points might be given for each year of specialty practice, and 50 points might be given for each specified medical society or hospital staff responsibility. A doctor who has been in specialty for 12 years, who is chief of his hospital's department and whose work produced \$60,000 of charges that year would thus be allocated 770 points to decide his final share of the practice's net income for the year in question.

While the point value system attempts to evaluate each member's contribution to the group's overall success, it has one very serious

flaw. The group's attempt to quantify relative values for such matters as seniority, production and professional status itself involves a negotiation between the partners. All too often, therefore, these different matters are assigned their points on a negotiated basis, and the partners might just as well have determined mere percentage divisions in the first place.

What is more, even if the point values are satisfactorily determined, such systems have other built-in disadvantages. First, as they become more and more sophisticated, they tend to become less well understood by the doctors involved. This difficulty may well defeat any incentive effect such systems might have been intended to produce. Second, point systems tend to require special and often extensive accounting work, not to speak of the amount of members' time devoted to tabulating their relative point situations. All in all, therefore, while point value systems seem excellent in theory, they have been far less successful in practice.

Conclusion. This article has described basic approaches to the extremely touchy problem of dividing income. Actual formulas which are in existence and which have worked well are legion, but the most important point to remember is what has been successful for one group may be absolutely wrong for another. The problem simply requires honest and candid attention by all the group members. It should also require some continued periodic attention by the group. Partners should act promptly to recognize and resolve any dissatisfaction as soon as it develops. Income division disputes are likely to grow in intensity as time passes. Prompt attention might save an effective group practice from unnecessary dissolution.



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Hyperab® RABIES IMMUNE GLOBULIN (HUMAN)

DESCRIPTION

Rabies Immune Globulin (Human)—Hyperab® is a sterile solution of antirabies gamma globulin (IgG) concentrated by cold alcohol fractionation from plasma of donors hyperimmunized with rabies vaccine. Hyperab® globulin is a 16.5% ± 1.5 solution of gamma globulin from venous blood in 0.3M glycine, preserved with 1:10,000 Thimerosal (a mercury derivative). Its pH is adjusted with sodium carbonate. The product is standardized against USA Standard Antirabies Serum. The USA unit of potency is equivalent to the International Unit (IU) for rabies antibody.

This product is prepared from human venous plasma. Each individual unit of plasma has been found nonreactive for hepatitis B surface antigen using the radioimmunoassay method of counter-electrophoresis.

INDICATIONS

Treatment of rabies, once clinical disease becomes apparent, is rarely if ever successful. Rabies vaccine (duck-embryo origin, Lilly Laboratories) with or without Rabies Immune Globulin (Human)—Hyperab® should, therefore be given to all persons suspected of exposure to rabies, particularly to severe exposure. Whenever possible, Hyperab® globulin should be injected as promptly as possible after exposure. If initiation of treatment is delayed for any reason, however, Rabies Immune Globulin (Human) should be given just the same, regardless of the interval between exposure and treatment.

Rabies virus is usually transmitted by the bite of a rabid animal, but can occasionally penetrate abraded skin with the saliva of infected animals. Progress of the virus after exposure is believed to follow a neural pathway, and the time between exposure and clinical rabies is a function of the proximity of the bite (or abrasion) to the central nervous system and the dose of virus injected. The incubation is usually 2 to 6 weeks, but can be longer. After severe bites about the head and neck, it may be as short as 10 days.

After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies. Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized.

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO, and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

INJECTION PROCEDURE

A portion of the Hyperab® globulin dose should be used to infiltrate the wound. The rest is injected intramuscularly.

CONTRAINDICATIONS

Rabies Immune Globulin (Human)—Hyperab® is contraindicated in repeated doses, once vaccine treatment has been initiated. Repeating the dose may bring about interference with full expression of active immunity expected from the vaccine. Hyperab® globulin is also contraindicated in individuals who are known to have an allergic response to gamma globulin or thimerosal.

PRECAUTIONS

NEVER ADMINISTER Hyperab® globulin INTRAVENOUSLY.

ADVERSE REACTIONS

Slight soreness at the site of injection, and slight temperature elevation, may be noted at times. Sensitization to repeated injections of human globulin is extremely rare.

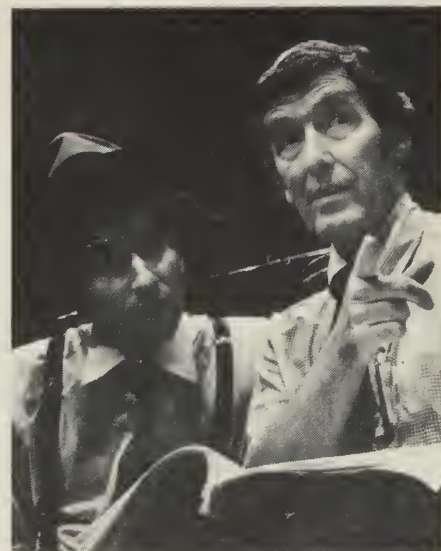
In the course of routine injections of a large number of persons with human gamma globulin, there have been a few isolated occurrences of angioneurotic edema, nephrotic syndrome, and anaphylactic shock after injection. Because of their rarity, it is difficult to determine whether such reactions are incidental, or causally related to the gamma globulin.

No instances of transmission of hepatitis B (homologous serum jaundice) have been reported from the use of human gamma globulin prepared by the fractionation methods employed by Cutter Laboratories, Inc.

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Rabies Immune Globulin (Human)—Hyperab® is packaged in 2-ml. and 10-ml. vials with a potency of 150 International Units per ml. (IU/ml.). The 2-ml. vial contains a total of 300 IU which is sufficient for a child weighing 15 kg. (33 lb.). The 10-ml. vial contains a total of 1500 IU which is sufficient for an adult weighing 75 kg. (165 lb.).

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On the Prevention of Amputations

OCCLUSIVE ARTERIAL disease continues to be a commonly encountered disorder. With the increasing size of the geriatric population, a rising incidence can be expected.

A frequent early symptom is intermittent claudication; it has a restrictive effect on the quality of life and often also on employability. Claudication and the more serious complications leading to major amputation of one or both limbs add up to a significant individual as well as public health problem.

At any age, amputation is a sad and handicapping event. In geriatric patients, who so often have limitations already imposed by heart disease, neurological disease, arthritis, emphysema, and cancer, the loss of one or both legs amounts to a disaster.

The critical period before and after amputation often is attended

CME Credit

One hour of Category 1 AMA Continuing Medical Education credit will be granted by the Indiana University School of Medicine for successful completion of the quiz that accompanies this article. The quiz appears on Page 167.

The author is board-certified in cardiovascular diseases and internal medicine. He is a Fellow of the American College of Physicians, a member of the American Diabetes Association, and a Fellow of the American College of Angiology.

Publication supported in part by the Mary Rogers Fund of the Indiana Medical Foundation.

with pain, sepsis, and prolonged immobilization and carries significant mortality. If the patient survives this period, the extra physical demands which occur when the patient begins to use a prosthesis often add an unacceptable extra load

KENNETH R. WOOLLING, M.D.
Indianapolis

to a previously compromised state of compensation. Even when, for one reason or another, a prosthesis cannot be used, the patient is forced to use crutches or to be resigned to a wheelchair existence; such a state also places extra demands on the body.

Clearly, prevention of amputation is highly desirable. The most effective means of preventing it is to enlist the cooperation of the patient in avoiding practices which lead to conditions requiring it. Things which the patient does without consulting the physician so often start serious complications leading to gangrene which could have been prevented; for example, the injudicious application of heat to the ischemic leg, the use of heavy



or tight elastic stockings, self-treatment of minor foot disorders and delay in seeking medical advice for these. To this end, a detailed set of printed instructions should be given to every patient when the diagnosis of chronic occlusive arterial disease is first made. This material should be available in the physician's office.

The following is one such set of instructions which has been updated to October 1980. If these instructions were given to all patients when occlusive arterial disease is found, whether symptomatic or asymptomatic, and if the physician stresses the importance of reading and understanding these to the patient or to a responsible family member, it is probable that many persons would be spared the ordeal and handicap of amputation.

Instructions for the Patient Who Has Occlusive Arterial Disease

You have an organic disease of the arteries of your lower limbs. The arteries are the blood vessels which carry blood pumped by the heart to reach the legs and feet. Arteries are hollow, tubular structures which function somewhat like

pipelines.

The disease which you have has caused the walls of the arteries to thicken. This narrows the passageway. The narrowing may be slight, moderate, or severe. Sometimes the passageway through cer-

tain sections of the thickened arteries may narrow to the point of complete blockage. The result is less blood flowing through to reach the legs and feet.

Since oxygen and nourishment to keep the flesh of the legs and feet healthy and strong is carried in the blood, the reduction in blood supply may impair the structure and function of these parts. This impairment may produce intermittent symptoms, such as aching or tiredness in the legs and feet when you walk or run, or constant symptoms, such as pain, numbness, coldness, slow healing of abrasions and infections, slow growth of nails, open sores, or unusual color of the legs and feet, such as severe whiteness, blueness, or redness.

At present, there is no quick or sure cure for the condition of your arteries; however, with time and correct treatment administered by your physician, there may be a great deal of improvement. In some cases, the progress of the disease may be stopped entirely; in others, further development of the disease can be delayed or diminished. Some of the serious complications, such as open sores or infections, often can be completely cured, and walking ability may improve.

The goal of treatment is to increase the amount of blood getting to the lower limbs. In some patients, an operation can widen the arteries and allow more blood to get through. The arterial passageways can be opened up or widened by surgical cleaning out of the sections which are thickened or blocked.

Blood flow also can be re-established by surgical insertion of a bypass channel (either one made from one of your own veins or an artificial one made of plastic or other specially prepared tissue) which carries blood around the blocked part of the artery to still unobstructed sections downstream. In other cases, a tiny tube (catheter),

to the end of which a small, deflated balloon has been attached, can be threaded into the narrowed artery above the level of the blockage and advanced downstream under x-ray fluoroscopic observation to the point where trouble exists; the balloon is then inflated and stretches open the artery, after which the balloon is deflated and quickly removed along with the catheter. Another kind of operation upon certain nerves located deep in the back (the sympathetic nerve trunks) allows the arteries to relax and expand the circulation to the feet and legs.

Your physician can advise you as to whether your particular case might be suitable for one of these operations. In many persons the narrowed, diseased arteries are found after investigation not to be suitable for correction either by surgery or by the balloon dilation technique. Fortunately, medical (non-surgical) treatment can still be used and will help many patients.

The main arteries of the legs have branches, and these are not affected as much by disease as are the main channels. These branch arteries gradually enlarge and carry blood around the narrowed arterial sections to reach the more distant parts of the lower limbs. These "detour" arteries can be encouraged to enlarge over a period of time. Eventually, these may enlarge sufficiently that a considerable amount of blood can be carried through them to reach the feet. To a degree, these detour arteries in time may take the place of the main arteries, resulting in a definite improvement in your circulation. The detour arteries collectively are referred to as the "collateral circulation". Your physician can advise you as to the best way to encourage the development of the collateral circulation.

One thing which will discourage

the opening up of detour vessels is tobacco. Tobacco contracts and decreases the size of detour arteries. Newer scientific evidence indicates that tobacco also hastens the thickening and blockage of the main arterial channels. In certain cases (Buerger's disease), tobacco is the primary cause of the disease. For this reason, under no circumstances should you ever smoke or use tobacco in any way. If you have been using it, you should stop it completely and permanently.

Your hope for improvement rests on the gradual enlargement of the collateral arteries and in arresting or retarding the disease process in the major arterial channels. Therefore, the use of any form of tobacco, *even one cigarette*, is definitely harmful to you. *It must be avoided as if it were a poison.*

Any person with occlusive arterial disease should take special precautions in caring for his feet and legs. The poor circulation in the extremities makes your feet and legs very susceptible to any kind of injury, even a minor one. You must carefully avoid any cut, bruise, burn, chilling, overheating, or scratching of your feet and legs. In a person with normal circulation, a minor injury will usually heal; in you, it might not.

You can burn yourself thermally by hot objects, such as a heating pad or hot water bottle placed on the leg or foot, but also chemically by using strong salves or liniments. You can get frostbitten more easily than the normal person. You can chill your feet to the point that death of the skin or of the entire foot or leg (gangrene) may result from walking in snow or on ice.

In some cases, the feeling (sense of touch and sense of pain) in the feet may be lacking, so that you do not immediately notice a cut or burn. This is especially true in patients who have diabetes mellitus.

Even when the feeling is normal,

feet with poor circulation often lack the ability to heal unless special treatment is given. Never apply a heating pad, hot water bottle, or other hot object below the level of the knees, no matter how cold your feet may feel. Soft woolen socks may be worn in cold weather to decrease coldness. Never soak the feet in hot (more than 95° F.) water. Sunburn of the feet or legs also can produce a serious injury leading to gangrene. Never apply any strong ointment or liniment to the feet unless a physician familiar with diseases of the blood vessels has prescribed it for you.

Cut the toenails straight across after soaking in lukewarm water, and avoid cutting the skin. If necessary, the nails should be carefully cleaned with orange-wood sticks, or, better yet, especially if you cannot see your feet clearly or cannot easily bend over to reach them, have a podiatrist care for your nails regularly.

New shoes should be broken in gradually, wearing them only one-half hour on the first day, and increasing the time by one hour daily. Corns, callouses, and bunions should not be filed or cut. If a podiatrist treats you, be sure to tell him your circulation is impaired. Removal of ingrown toe-nails and minor surgical operations on the toes, feet, or legs should be done only in very rare instances and then only by a doctor who is experienced in diseases of the blood vessels. Improper removal of a nail or corn can lead to serious trouble if your circulation is poor.

The feet should be carefully and gently washed with mild soap and warm water about every day. Pat or blot the skin dry. Avoid vigorous rubbing, as it may tear the skin. Do not apply adhesive tape directly to the skin. Do not apply tight garters, tight socks, or tight stockings. Elastic stockings or elastic bandages, if needed for other reasons, must be

selected with great care and with your physician's approval, since, if too tight, these may shut off the blood supply to a dangerous degree. If the skin is unduly dry, gently apply a thin film of plain lanolin or cocoa butter (available at most drug stores) once daily.

Never go barefoot. After undressing, bedroom slippers should be worn at all times when out of bed. If, in spite of the above precautions, a minor injury should occur, cleanse the part gently with a mild soap, as described above, and go to bed for a few days. If it does not heal, consult your physician.

If your doctor has told you that you have "athlete's foot" (a fungus infection of the skin), you should receive special treatment for this, since this condition may lead to peeling and cracking of the skin between the toes and on the sole of the foot. This can progress to serious ulceration or even loss of the toe, foot, or leg in a person who has occlusive arterial disease.

A safe method of treatment of "athlete's foot" is the liberal application of Desenex powder or Tinactin powder (dusting powders available at most drug stores) around the toes and feet on arising, on retiring, and after bathing. Aerosol sprays of dusting powder should not be used; the powder should be applied from a shaker type container. If this does not clear up the infection, other treatment should be prescribed by your physician.

As mentioned above, the wall of the diseased artery may gradually get thicker so that the opening through it gets smaller and smaller. The opening (the "lumen" of the artery) through some segments of the artery may be completely shut off and closed. Usually this process is very gradual, requiring many months or years to occur and affecting only a short length of the artery. Usually the condition develops so slowly that your detour arteries

have plenty of time to open up and act as substitutes before complete obstruction of the main artery has occurred.

In a small percentage of cases, however, a main artery can narrow and close suddenly. When this happens, the patient usually notices a sudden change in the condition of the leg or foot, such as profound coldness, profound whiteness or blueness, severe pain, severe numbness, or weakness. Should this happen, your physician should be contacted without delay, since emergency treatment may be needed.

In such a case, it is usually best to wrap the leg and foot loosely with a soft blanket or towel and place it in a position slightly lower than the rest of the body. It should *not* be elevated. *Under no circumstances should heat or ice be applied.* Almost always in these emergency situations, there is a big and very definite change which the patient can notice without any doubt. Minor degrees of change in symptoms and appearance of the leg and foot are commonplace and do not usually indicate any serious new obstruction of the circulation requiring emergency treatment.

Much research is being done by the medical profession to improve the treatment and to discover more about the causes of diseases of the arteries. Physicians hope for a "breakthrough" soon in this research, so that greatly improved treatment can be offered patients who suffer from these disorders.

It is advisable for all patients with chronic occlusive arterial disease to see their physician regularly so that significant changes in the circulation can be detected and proper treatment prescribed. In this way, much unnecessary trouble can be prevented. Also, newer knowledge and advances in treatment can more quickly be made available to the patient.

Medical Anti-Shock Trousers

Emergency Medicine

AN INDIANAPOLIS surgeon rushed into a busy Emergency Department (ED) to see a trauma patient, took out his scissors, cut the patient's trousers and then asked where all of the air was coming from. An internist unzipped the trousers on an aneurysm patient and wondered why he died immediately. Comical? Perhaps, but true.

MAST Date Back to 1903

Medical Anti-Shock Trousers (MAST) or pneumatic shock trousers date back to 1903 when surgeon George Washington Crile first used leg and abdominal compression to counteract hypovolemia. The first life to be saved with the forerunner of today's MAST was recorded in the literature again by Crile in 1909. E. H. Lambert and W. J. Gardner resurrected the idea of the MAST in the 1950s with W. M. Daggett applying the principle in Vietnam in 1969. The civilian population again benefited from the MAST beginning in 1973 in Miami, Florida, and its popularity has grown tremendously while its practicality and safety have been repeatedly documented in the literature.

Many of Indiana's ambulance services, both basic and advanced (paramedic), are already utilizing MAST to save lives on a voluntary basis. In July 1981, the state will mandate the presence of MAST on all state-certified ambulances and will mandate the training of all state-certified prehospital personnel in the use of the MAST. The

actual use of MAST will be at the discretion of the local ambulance service and their medical community, but the equipment will be

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available and personnel will be trained in its usage. MAST are also commonly found and used in many of the state's EDs. Familiarity with MAST by the physician who does not frequent his hospital's ED may save a patient's life and the physician's own suit, let alone the shirt off his back.

What is MAST?

MAST are referred to in the literature by a variety of names (*Table 1*). They consist of a double-layered set of polyurethane pants which fit over the legs and cover an area from the ankles to the lower ribs not to include the feet. Most brands are divided into three compartments which can be inflated/deflated separately with a pressure gauge or pop-off valve to limit pressures to no greater than approximately 110 mm Hg. Normally, a pressure of 40 mm Hg will suffice. MAST come in both a pediatric (5-12 years of age) and an adult size. For cathe-

terization and sanitation, the perineal area is open on MAST.

Once inflated, the MAST compress the lower extremities circumferentially, increasing peripheral resistance and shunting blood and blood flow to the upper torso and the vital organs (brain, heart, lungs, kidneys and liver). In the average adult, inflation will result in a 20% autotransfusion of the patient's blood volume in only one to two minutes (*Table 2*). Additional blood also will be transfused from the abdominal cavity which inflates only anteriorly rather than circumferentially to allow for concurrent spinal immobilization without distortion on inflation.

With inflation of both the legs and the abdominal sections of the MAST, up to 40% of the patient's blood volume will be shunted to the vital organs. Additional benefits of the MAST include simultaneous splinting of lower extremity fractures, and, more importantly, tamponading of internal bleeding (pelvic and femoral fractures, ruptured ectopic pregnancies, abdominal aneurysms, liver and splenic lacerations, and retroperitoneal bleeds).

When to Use MAST

There is *no* contraindication to the initial use of MAST. MAST is to be used for hypovolemic or neurogenic shock, suspected or real. With the intelligent monitoring of the patient's vital signs (blood pressure, heart and respiratory rates) and neurological status, any patient can be treated with MAST.

The literature discusses head injuries and thoracic trauma as

TABLE 1. MAST—By Many Names

Medical Anti-Shock Trousers
Military Anti-Shock Trousers
Pneumatic Trousers
Pneumatic Shock Pants
Anti/Shock Air Pants
Pneumatic Rubber Suit
Trauma Suit
Shock Pants
Anti-Gravity Suit
G-Suit

The author is chairman of the Emergency Medical Services Commission, State of Indiana.



PHOTO BY ROBERT C. BIEHN, WISHARD MEMORIAL HOSPITAL

possible contraindications to MAST. Remember, *head injury does not cause shock*. A patient with a head injury who is hypotensive either is hypovolemic from a large scalp wound or other injury (e.g., splenic rupture) or is in neurogenic shock from an associated spinal cord injury—both indications for MAST. A patient with thoracic trauma most likely will have associated abdominal trauma (liver, spleen, aorta, vena cava) resulting in hypovolemic shock. If the patient with thoracic trauma is indeed exsanguinating only from the thoracic trauma, death will result from inadequate perfusion in the absence of MAST's or external infusion of fluid.

In patients with head and/or thoracic injuries who are also hypotensive, the MAST can be placed and inflated. If the patient's neurological or respiratory status deteriorates after repeated assessments

while the MAST are inflated, the MAST can be simply deflated. Studies have *not* shown MAST to be of significant adverse effect to the chest- or head-injured patient when they are inflated, nor has the lactic acid accumulation in the lower extremities during prolonged inflation (6-12 hrs) at high pressures been a significant problem on deflation of the MAST. The benefits of adequate mean arterial pressure and the resultant adequate perfusion of the vital organs far outweigh the side effects of MAST.

MAST also can be an excellent

means to differentiate forward from backward heart failure. The resultant autotransfusion of MAST will improve venous return, ventricular filling and stroke volume. A patient in forward failure will improve with MAST and signal the need for fluid, not drug therapy. A patient in backward failure will worsen with MAST inflation—a complication immediately reversed with deflation—and will save the physician the embarrassment of a fluid challenge which will often not immediately diurese and will save the patient the pain, risk, and confinement if central catheters (e.g., Swan-Ganz) are not necessary.

[Note: MAST are not to be confused with rotating tourniquets. Rotating tourniquets circumferentially compress the proximal extremity only, trapping blood in the extremity away from the central circulation. MAST compress the entire extremity circumferentially, squeezing blood superiorly into the central circulation.]

Now That They Are On . . .

With the exception of immediate removal on worsening of backward failure, MAST should not be removed until the patient is stabilized by other means. In hypovolemic shock, adequate fluid replacement will be required. Drugs such as dopamine will not treat hypovolemic shock. In cardiogenic/hypovolemic shock, cautious fluid and drug therapy will be required. In these cases, the trousers may be deflated at 10mm Hg increments at

TABLE 2. MAST Autotransfusion Volume*

Blood Volume Transfused (cc)* = percentage x weight (kg) x 70 (cc blood/kg)
 Percentage = 20% legs inflated*
 = 30-40% legs and abdomen inflated*
 Example: 70 kg patient, leg compartments inflated
 Blood Volume Transfused* = 20% x 70 x 70 = 980 cc
 Example: 70 kg patient, legs and abdomen inflated
 Blood Volume Transfused* = 40% x 70 x 70 = 1960 cc

[* = approximation]

three-minute intervals, stopping when necessary to adjust fluid and/or drug therapy until the MAST are completely deflated. In suits with three compartments (right and left leg, abdominal), it is best to deflate the abdominal compartment in this manner first, then one leg at a time.

In the case of severe trauma re-

quiring immediate surgery, it is best to preload the patient with fluids/blood, have the surgical team "ready to cut," induce the patient, deflate the trousers immediately from the operative area leaving the other compartments inflated, and settle for a minimum of pre-operative prepping. The anesthesi-

ologist or other surgical personnel may slowly deflate the other compartments as the bleeding sites are controlled surgically and as fluid/blood replacement corrects the hypovolemia.

For Additional Information . . .

Write to the author for the pamphlet, "Medical Anti-Shock Trousers in Pre-Hospital Care: An Emergency Approach," written by Shirley A. Jones, M.S., EMT-P (Wishard Memorial Hospital Ambulance Service, Indpls.):

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Or, consult one or more of the articles in *Table 3*.

TABLE 3. Additional MAST Articles to Consult

Ann Emerg Med	9:419-21 ('80)	MAST overview, 34 references
JACEP	7:107-9 ('80)	MAST for cardiogenic shock
JACEP	7:297-99 ('80)	MAST for respiratory function
Ann Emerg Med	10:28 -31 ('81)	MAST for intracranial pressure
Am J Surg	129:369-73 ('75)	MAST for post-op abd. bleeding
Arch Surg	109:326-28 ('74)	MAST for pelvic fractures
J Urol	107:940-44 ('72)	MAST for retroperitoneal bleed
JACEP	8:184-87 ('79)	MAST and metabolic acidosis
Surg Gynecol Obstet	134:253-58 ('72)	Renal blood flow and BP changes with MAST
Urol	6:468-70 ('75)	MAST for urological bleeds
J Trauma	17:119-24 ('77)	MAST and shock

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DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandroster-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunuchism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahoglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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CAROTID ANEURYSM: A Case Report

A 72-YEAR-OLD white woman noted a small lump in the right side of her neck three years ago. This mass remained stable until six months ago, when it enlarged slightly. She had become aware of pulsation of the mass.

The patient reported no pain or discomfort. There had been no dizziness or other neurological symptoms. Four years previously, she had had an episode of epistaxis, caused by increased blood pressure. She denied any history of myocardial infarction, diabetes or tuberculosis.

On examination, her blood pressure was 210/120. Pertinent physical findings were limited to the neck. There was a pulsatile mass behind the angle of the right mandible and below the mastoid process; it was not tender. A systolic bruit was present. The mass measured 2 cm x 3 cm. The trachea was in the midline. The thyroid was normal.

The clinical impression was an aneurysm of the right internal carotid artery. Arch aortography revealed a smooth-lined vascular mass; the lower portion of which was at the level of the carotid bifurcation. The upper portion was 1.5 cm below the mastoid process. The mass was filled with dye, after clearing of the arteries, indicating stagnant flow.

A resection of an aneurysm of

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Indianapolis

the right internal carotid artery with end-to-end anastomosis was performed without difficulty. The patient did well and did not sustain any neurological deficits.

Discussion

Occlusive and stenotic lesions of the extracranial carotid system are repaired now with standard endarterectomy. These lesions usually occur at the bifurcation and extend only a short distance, thereby making distal control obtainable. A much less common entity is aneurysmal dilatation of the extracranial carotid system. These, on the other hand, may extend for variable distances, making distal control and cerebral protection unobtainable.

Carotid surgery began in 1552 when Ambroise Pare, in order to control massive hemorrhage from a laceration, ligated the carotid artery. It wasn't until 1805 that surgery for carotid aneurysm began. Sir Astley Cooper ligated internal carotid aneurysms in two patients. His first patient died, but the second one lived 13 years without neurological deficit.

The majority of carotid aneurysms are intracranial. Extracranial carotid aneurysms may be 1) congenital, 2) traumatic or false, 3) mycotic or syphilitic, 4) due to medial cystic necrosis, or 5) due to atherosclerosis. By far the most common etiology is atherosclerosis.

Topographically, these affect the external carotid in 2.2%, the internal carotid in 49.7% and the common carotid in 48.1%.

Congenital aneurysms are believed to be due to elastin replacement by mucopolysaccharide elements. Traumatic aneurysms may be due to blunt, penetrating or iatrogenic injury. Iatrogenic injury may be in conjunction with endarterectomy, percutaneous needling, tonsillectomy, lymph node dissection or even neck irradiation. The dominant etiology of the aneurysm is atherosclerosis. The cycle of degenerative changes destroys the vascular integrity, thereby allowing aneurysmal dilatation to occur.

Hemodynamic insufficiency may result from decreased endoaneurysmal flow or stenosis secondary to compression. These symptoms may be vestibular or ophthalmic in nature, or may manifest as dysphasia, syncope or hemiplegia.

Cervical symptoms may include 1) expansion of the mass leading to respiratory distress, 2) bleeding secondary to rupture which may manifest locally in the neck, as epistaxis or through the external auditory canal, 3) pain secondary to traction compression of local tissue, especially nerves.

The diagnosis may be made by physical findings. Recognition of a pulsatile mass alongside the axis of a vessel leads to the diagnosis. A palpable thrill or bruit may be found synchronous with the heart beat. Plain films of the neck are helpful if calcification is present in the aneurysmal sac. Angiography

This report is based on a discussion during the Peripheral Vascular Conference conducted in September 1980 at St. Vincent Hospital, Indianapolis.

by far is the most valuable aid in diagnosis. This provides invaluable information as to the size, magnitude and shape of the aneurysm. It also may show coincidental stenosis, contralateral aneurysm and adequacy of collateral circulation.

Differential diagnosis includes the following:

- Developmental abnormalities
 - 1) Hygromas
 - 2) Branchial cleft cyst
- Vascular abnormalities
 - 1) Redundant carotid artery
 - 2) Hemangiomas
- Inflammatory processes
 - 1) Peritonsillar abscess

- 2) Parotitis
- Neoplastic processes
 - 1) Chemodectoma
 - 2) Tonsillar, parotid, cutaneous primary or metastatic lesions

Expectant therapy is fraught with disastrous results. The treatment therefore is surgical. A policy of observation will conclude with either stroke or exsanguination. Historically, the treatment began with simple ligation. The use of clamps such as the Selverstone Clamp may be useful in precarious situations. Thompson in 1957 recommended wrapping the aneurysm with fascia lata. This might control expansion

of the aneurysm but could not control the thromboembolic phenomena which are likely to ensue.

Summary

By far the most acceptable treatment includes resection of the aneurysm with restoration of flow. Sometimes in smaller aneurysms resection may be followed with end-to-end anastomosis. Replacement with either saphenous vein or artificial material offers another alternative. The use of intraluminal shunts for cerebral protection remains controversial.



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Sonographic Findings of Chronic Intussusception in the Adult

CHRONIC INTUSSUSCEPTION in the adult is a relatively rare entity. It differs from childhood intussusception in that it usually is a secondary condition preceded by masses in the small bowel or by previous surgery.¹⁻⁶ It may present as recurrent abdominal pain, diarrhea, or evanescent or persistent palpable masses in the abdomen.

Diagnosis of intussusception prior to the use of sonography was by the use of barium contrast examination. However, intussusception of the jejuno-ileal type following bypass surgery for morbid obesity rarely is demonstrated by barium enema. In fact, the most common finding in barium enema is failure of filling of the defunctionalized bowel.

Reports of isolated cases of ileo-colic and jejuno-ileal intussusception have appeared in the ul-

ABSTRACT

Gray-scale ultrasonography was performed in three patients with chronic intussusception. One patient with ileo-colic intussusception from "stitch" granuloma and two patients with jejuno-ileal intussusception following bypass surgery are presented. Sonographic findings of "doughnut" lesion and "reniform" lesions are persistent in all three patients. The findings, although non-specific, are most helpful in arriving at a definite diagnosis.

Index terms:

Intussusception—Ultrasound, intussusception; Jejunio-ileal bypass—Ileo-colic intussusception.

trasonound literature recently.⁷⁻¹⁰ We have had the opportunity to observe three cases of intussusception with persistent sonographic signs and all were verified at surgery.

Method

Commercially available Picker Echoview System 80C and Rohe 5550 were utilized in the study, us-

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ing a 3.5 mHz transducer. Standard longitudinal and transverse sections were employed at 1.5 - 2 cm. intervals. Additional sections along the longitudinal axis of the masses were used if a clearly defined mass lesion could be palpated.

Case 1: A 21-year-old woman was seen in the emergency room for nausea and crampy abdominal pain. The only pertinent history was that she had had an appendectomy six months prior to onset of symptoms. Her symptoms were severe enough that she sought medical attention at the ER three times within a week. Physical examination revealed a fullness and palpable mass in the right lower quadrant.

Ultrasound examination revealed a mass with a sonolucent ring and echogenic center on the transverse scan, and a longer "reniform" le-

sion was demonstrated in the left upper abdomen (*Fig. 1A,B*). The sonographic findings were similar to the "doughnut" described by Sarti, et al.¹⁰ Barium enema subsequently confirmed the sonographic diagnosis of ileocolic intussusception (*Fig. 1C*); partial reduction to the ileocecal junction was obtained. A "stitch granuloma" was found to be the cause of the intussusception at surgery.

Case 2: A 34-year-old woman presented to the hospital with recurrent abdominal pain and vomiting. Two years prior to admission, she had had small bowel bypass surgery for morbid obesity. A year after her surgery, she began to have recurrent episodes of abdominal pain and vomiting. Several hospital admissions elsewhere failed to reveal the cause of her problem.

On admission, she had fullness and tenderness in the left upper quadrant, and a sausage-shaped mass that was relatively tender was found in the right lower quadrant. Retrograde small bowel study revealed a mass effect in the mid-proximal transverse colon and bare area due to defunctionalized bowel (*Fig. 2C*). Colonoscopy, upper GI series, and panendoscopy were all negative. Ultrasound examination revealed a "doughnut" lesion on transverse scan and "reniform" shaped lesion on sagittal slices (*Fig. 2A, B*). Intussusception of the defunctionalized bowel was enter-

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Acknowledgements: Ms. Mary Gain and the Audio-Visual Department of Methodist Hospital Graduate Medical Center for the production of this paper.

tained and subsequently proven at surgery.

Case 3: A 23-year-old woman was referred to our hospital as a last resort before her referral for psychiatric consultation. She had had a bypass surgery 1 1/2 years prior to admission and had been having recurrent abdominal pain and vomiting since her surgery. Her surgeon and family physician failed to find the cause of her complaints and were prepared to send her for psychiatric treatment. She requested a transfer to our hospital for one more diagnostic workup.

Review of her barium enema and upper gastrointestinal series done in the outside hospital were all negative except for nonvisualization of the defunctionalized bowel. She was still quite obese and palpation of the abdomen revealed only questionable fullness in the left upper quadrant and right lower quadrant.

Immediate ultrasound examination on the day of admission showed the typical "doughnut" shape and "reniform" lesion that we thought were reliable signs of intussusception (*Fig. 3A, B*). Surgery done the next day confirmed the sonographic findings. A chronic ulcer and perforation of the intussusciens were noted at surgery. The patient has since ceased complaining and nothing else needed to be done.

In all three cases, the sonolucent ring in all scans represented the thickened edematous outer bowel wall and the echogenic center the compressed intussusceptum.

Discussion

The diagnosis of chronic intermittent intussusception often is difficult by conventional means. Barium enema may demonstrate the intussusception in the ileocolic type but rarely will demonstrate any abnormality in the jejuno-ileal type. The defunctionalized segment has lost its contiguity, with the rest of

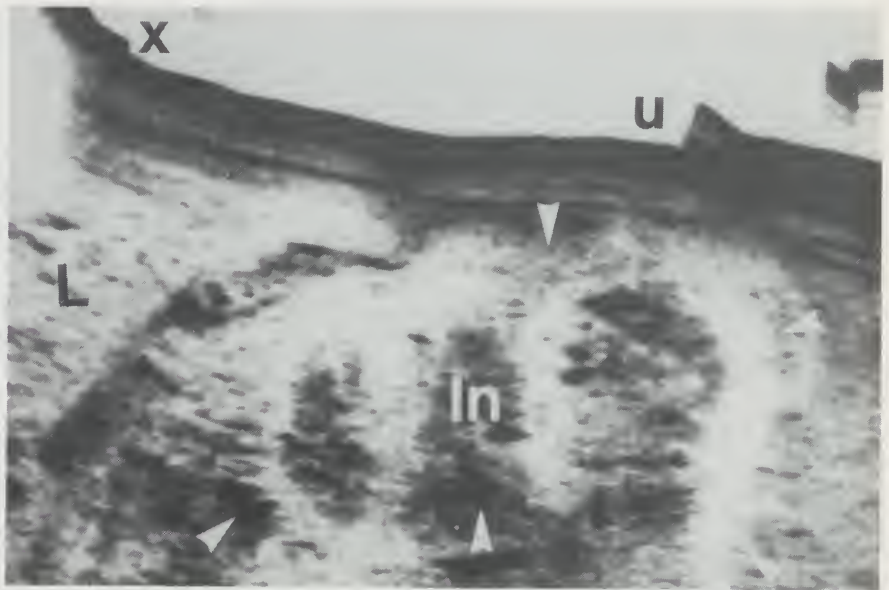


FIG. 1A Longitudinal scan 5 cm. to the left of midline. X-xiphoid, U-umbilicus, L-liver, Δ s-long axis of intussusception "reniform" lesion, In-intussusceptum.

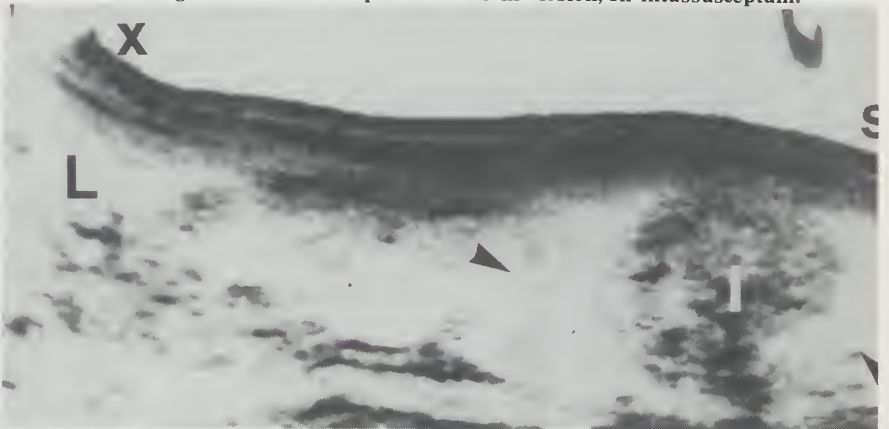


FIG. 1B Longitudinal scan 2 cm. to right of midline. X-xiphoid, S-symphysis, Δ s-transverse section of intussusception, I-Intussusceptum "doughnut" lesion.

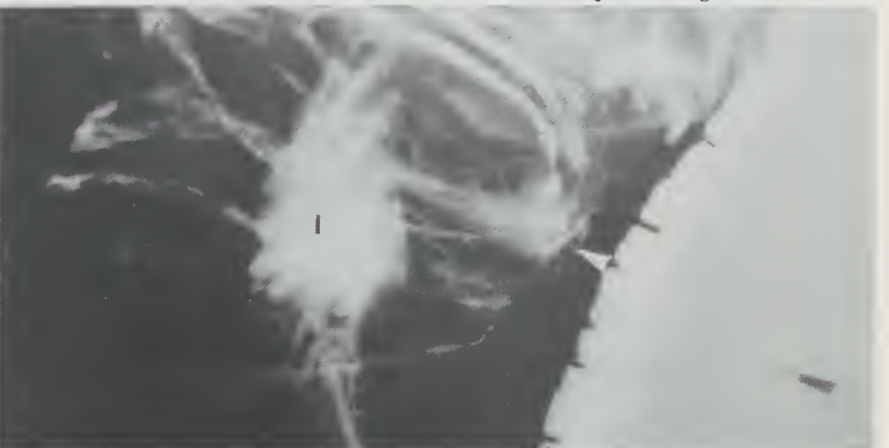


FIG. 1C Barium enema with retrograde small bowel examination. I-intussusceptum, Δ -intussusciens.

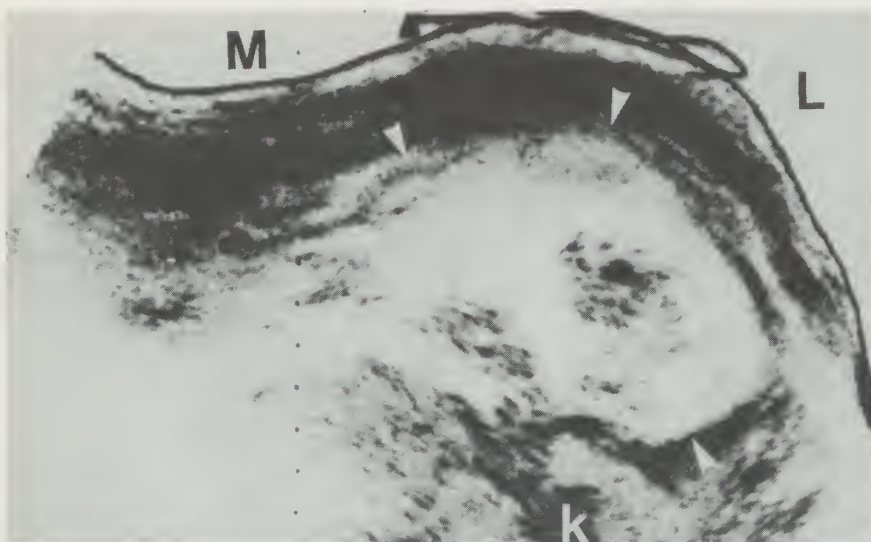


FIG. 2A Transverse scan left upper quadrant. M-midline, L-left, K-left kidney, Δ s-sonolucent mass with echogenic center, "doughnut" lesion.



FIG. 2B Longitudinal scan 4 cm. to left of midline. X-xiphoid, U-umbilicus, S-symphysis, K-kidney, \blacktriangle s-long axis of intussusception "reniform" lesion, Δ s-transverse segment of intussusception "doughnut" lesion.

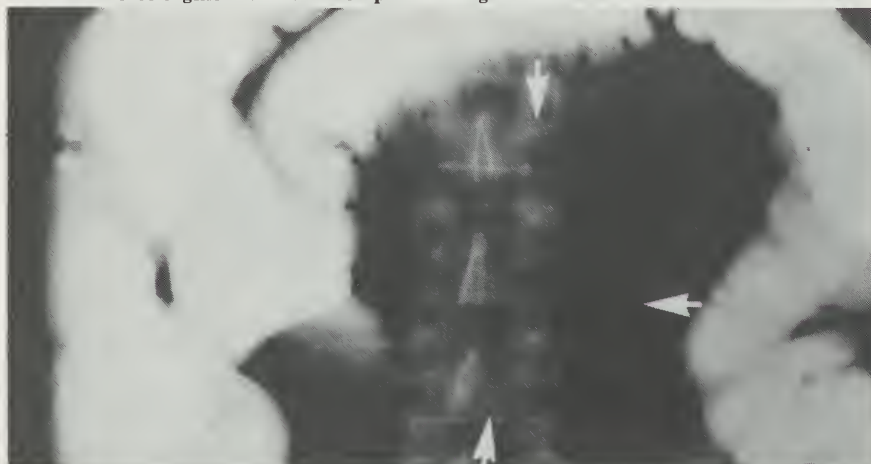


FIG. 2C Barium enema with retrograde small bowel examination. Arrows indicate bare area of defunctional bowel. Mild compression of mid-transverse colon.

the bowel preventing entry of the contrast material.

There are no classical signs and symptoms except for recurrent abdominal pain, vomiting and occasional diarrhea. Physical examination may likewise be non-contributory due to the basic obesity that makes palpation of the abdomen difficult. Localized fullness or tenderness often are present but masses usually are not felt on palpation, probably due to the intermittency of the obstruction or underlying obesity. Radiologic findings of intestinal obstruction are the exception rather than the rule.

Conclusion

In proper clinical settings such as those patients who had previous surgery and are presenting with complaints of recurrent abdominal pain and vomiting, sonographic findings of "doughnut" shaped lesions in the transverse sections and "reniform" lesions in the longitudinal sections are highly suggestive of bowel intussusception.

We believe the sonographic signs are highly reliable and extremely helpful in arriving at an early diagnosis. Therefore, ultrasound probably should be the initial screening examination of choice in patients suspected of intussusception.

The positive ultrasound findings may eliminate the use of other expensive diagnostic procedures, reduce patient discomfort, and initiate early surgical management.

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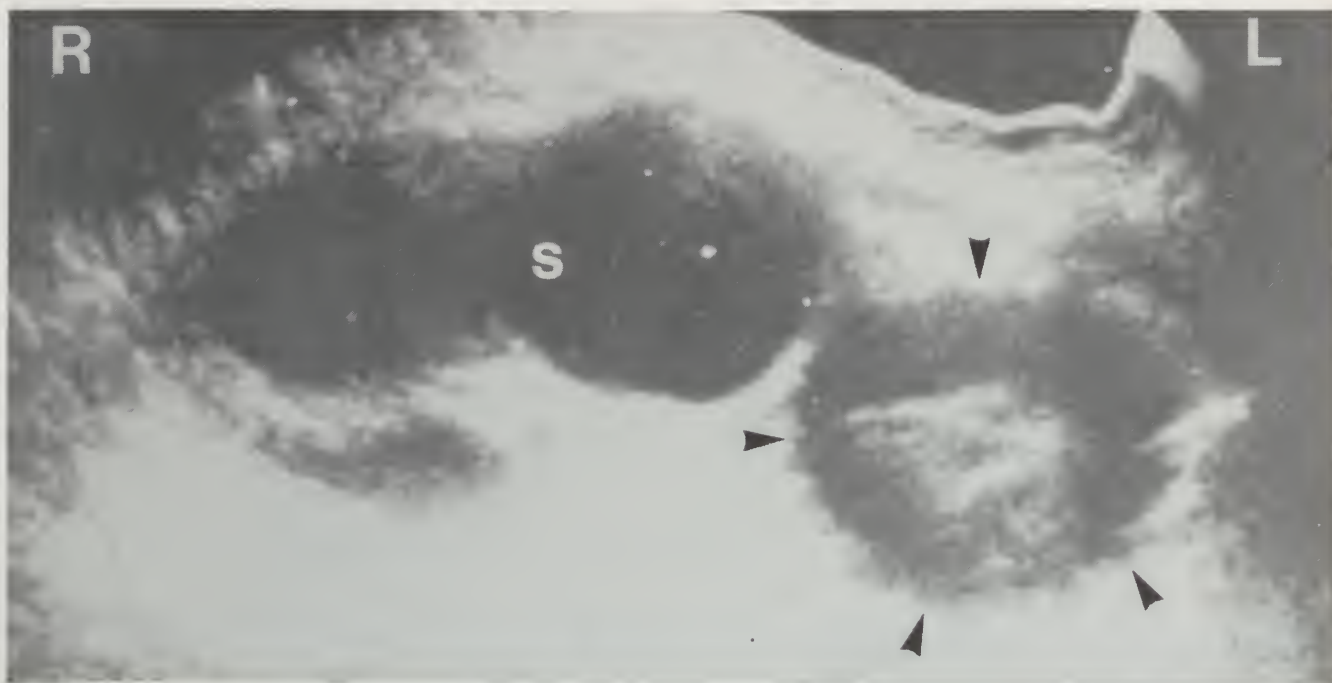


FIG. 3A Transverse scan of left upper quadrant. S-stomach, ▲s-transverse segment of intussusception "doughnut" lesion.



FIG. 3B Longitudinal scan 6 cm. right of midline. X-xiphoid, U-umbilicus, S-symphysis, ▲s-longitudinal segments of intussusception "reniform" shaped lesions.

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Diagnosis, Staging and Management of Malignancies Using CT and Lymphography

ABSTRACT

A review of 191 patients evaluated with both retroperitoneal CT scans and bipedal lymphography was made. Thirty-eight of these patients had laparotomy or autopsy correlation.

CT body scanning has many advantages over lymphography, including the lack of morbidity, the speed of the examination, and the ability to image all nodal regions in the abdomen and pelvis.

Unfortunately, CT body scanning is unable to image the lymph nodes with the detail available with lymphography, and CT has a high false-negative rate.

Our comparison indicates that lymphography remains the examination of choice in the evaluation for staging of most pelvic malignancies.

Index Terms: Computed tomography, abdominal. Lymphography, indications. Retroperitoneal space, neoplasms.

THE ADVENT OF computed tomography (CT) was expected to revolutionize the radiologic exploration of the abdomen and pelvis.¹ It has done so, but to a more limited extent than cranial CT has altered the investigation of intracranial problems, and to a lesser degree than perhaps most physicians had hoped and expected.

Some of the limitations are related to the lack of availability of these high priced machines, the slow processing time of most presently installed units, the motion and density artifacts that frequently occur, and the lack of sufficient contrast resolution to differentiate

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Indianapolis

between normal and neoplastic tissue.²

It was expected by many that CT would replace lymphography in the staging of certain malignancies, including lymphomas,^{3,4,5,6} certain genitourinary tumors,⁷ and some tumors of the lower limbs. The fervent hope of those performing these sometimes time-consuming, relatively more invasive studies^{8,9} has, to the present, not been completely realized. This we hope to illustrate from our initial sample of surgically confirmed material.

A review of 191 patients evaluated with both abdominal CT scans

and bipedal lymphography was undertaken. Surgical or autopsy confirmation was available for 38 patients. The diagnostic accuracy of CT and lymphography was compared in this series of 38 histologically proven cases. The efficacy of each approach in the staging and management of malignancies was compared in the 38 surgically confirmed cases as well as in the entire series of 191 patients.

Materials and Methods

The body scanner used was an EMI CT-5005 with a scanning time of 18 seconds. Section thickness was 13 mm. Scans of the abdomen and pelvis were performed at 2 cm. intervals for most patients. Intravenous and oral contrast administration was individualized. Four radi-

From the Department of Radiology, Methodist Hospital of Indiana, Inc., 1604 N. Capitol Ave., Indianapolis, Ind. 46206.

ologists were involved in scan interpretations. One radiologist read the majority of the lymphograms.

From December 1977 to November 1978, 191 patients had both lymphography and CT body scanning separated by an interval of less than one week. The majority of patients had the CT scan the same day as, and immediately prior to, the injection for lymphography.

The only patient selection factors were that the patient was referred for lymphography for any reason, and that there was an available slot in the CT schedule. In no case was the interpretation of the lymphogram and of the scan made by the same radiologist; the interpretations of the two examinations were made independently.

Of the entire series of 191 patients, 38 had surgical or autopsy correlation. It is in the 38 histologically confirmed cases that the diagnostic accuracy of CT and lymphography is compared. Although pathologic proof is not available for the majority of the 191 patients, much valuable information can be gleaned from comparing the lymphograms and CT scans in the entire series, particularly in the staging and management of patients with a known primary.

One hundred forty-three patients in our series had known primary cancers, including 32 of the surgically confirmed cases. The lymphogram and CT scan were performed to stage the malignancy and to follow each patient's response to radiation and chemotherapy. The two approaches, lymphography and CT scanning, are compared in the staging and especially in the management of patients following therapy.

Forty-eight of the 191 patients with suspected malignancy were diagnosed at discharge as having a nonmalignant disease. Six of these 48 patients had histologic confirmation. CT and lymphography are compared briefly in the evaluation

AUTOPSY OR SURGICALLY CONFIRMED CASES

PATHOLOGIC CORRELATION	CT	LYMPHOGRAM
TISSUE POSITIVE 19	FALSE NEGATIVE 7 *	FALSE NEGATIVE 1 **
TISSUE NEGATIVE 19	FALSE POSITIVE 3 +	FALSE POSITIVE 2 ++

* FALSE NEGATIVE CT - 7 CASES
5 METASTASES FROM . . . MALIGNANT MELANOMA PROSTATE TESTIS ENDOMETRIUM OVARY
2 LYMPHOMA HODGKIN'S LYMPHOSARCOMA

+ FALSE POSITIVE CT - 3 CASES
1 CASE LYMPHOID HYPERPLASIA
2 CASES NORMAL . . . THIN PATIENT PSEUDOTUMOR (DUODENUM)

** FALSE NEGATIVE LYMPHOGRAM - 1 CASE
1 CASE METASTASIS FROM PROSTATE (MICROSCOPIC ONLY)

++ FALSE POSITIVE LYMPHOGRAM - 2 CASES
1 CASE LYMPHOID HYPERPLASIA
1 CASE AORTIC ANEURYSM

TABLE 1



FIGURE 1—A homogeneous soft tissue mass is seen in the region of the duodenum. The lymphogram on the same patient was normal. At surgery an enterogenous cyst was found.

of patients with suspected malignancy.

Surgically Confirmed Cases. Thirty-eight patients had correlation of radiographic findings with

pathologic material obtained from the site of interest. Of these, 33 had staging laparotomy, five had autopsy confirmation. The majority of patients had retroperitoneal node

dissection performed within one month of the radiographic procedures. The few cases included in the group with node examination later than one month after CT and lymphography are described below. One patient died six months after negative CT and lymphogram examinations, but was included in the series in spite of the long interval because the autopsy confirmed the absence of malignancy. One autopsy performed six weeks after the CT and lymphogram confirmed widespread metastasis seen on both studies. One patient had surgery six weeks following the studies, confirming widespread metastasis seen on both CT and lymphogram. Thirty of the 33 patients staged by laparotomy had surgery within one month of the examinations. Two patients had laparotomy staging negative for malignancy, at three and at five months following negative CT and lymphogram examinations.

Known Primary Malignancy.

One hundred forty-three patients with known primary malignancies were examined by both CT body scan and lymphogram for the purpose of staging or follow-up after therapy. These 143 patients include 32 patients in the histologically confirmed series. Many of the patients in our series did not have laparotomy or autopsy confirmation. Most of these patients had a known primary, and the CT and lymphogram were accepted as the basis for staging or as the primary aids in the management of the patient following therapy. Sixty-one patients with a known primary lymphoma, (27 Hodgkin's and 34 non-Hodgkin's lymphoma), and 81 patients with other known malignancies in the pelvis or lower extremities were examined by both CT and lymphogram. Laparotomy was not performed on the majority of these patients, and most were staged by the



FIGURE 2—Initial surgery revealed dysgerminoma of the ovary without evidence of metastasis. Post-surgical lymphogram demonstrates a lymph node to the right of L3, which is partially replaced by metastatic tumor. The CT scan was negative. Surgery confirmed metastasis to a single lymph node from the ovarian tumor.

oncologists on the basis of clinical findings, lymphogram, Gallium-67 citrate scan, and CT scan in combination. The findings in this group are generally in accord with those having specific pathologic correlation. In 12 patients with lymphoma and 12 patients with other primary malignancies, serial CT scans or lymphograms were performed. It is from our experience with this large series that conclusions are drawn concerning the management of intra-abdominal malignancies.

No Malignancy. Forty-eight patients in our series were diagnosed at discharge as having problems unrelated to malignancy. Only six of

these had laparotomy correlation. These conditions include lymphedema, superior vena cava syndrome, thrombophlebitis, and fever of unknown origin. For several patients CT scanning was able to aid considerably in the diagnosis. The CT scan demonstrated a retroperitoneal enterogenous cyst in a patient suspected of having lymphoma (*Fig. 1*). CT scanning was particularly useful in demonstrating abscesses, cysts, and ascites, all in patients for whom lymphograms were ordered for the evaluation of suspected malignancies.

Results

The results of the series of 38 pa-

tients having histologic confirmation are summarized in *Table 1*.

Nineteen of the 38 patients had histologic confirmation of malignancy involving lymph nodes in the periaortic or iliac regions. Of these 19 patients, the CT examination was read as negative in seven (*Fig. 2, 3*), with a false-negative rate of 38%. For the same 19 patients with confirmed nodal malignancy, there was one false-negative lymphogram, a patient with microscopic metastasis from prostatic carcinoma. The false-negative rate for lymphography was, therefore, 5%. Of the 19 patients with no malignancy in the periaortic or iliac nodes, the CT was interpreted as positive in three, a false-positive rate of 16%. One case of lymphoid hyperplasia was read as positive for lymphoma on both CT and lymphogram (*Fig. 4*). One patient was thin, and the normal fat planes in the retroperitoneum were not demonstrable at CT scanning. The CT was interpreted as demonstrating lymph node enlargement with tumor infiltrating the retroperitoneal soft tissues (*Fig. 5*). The third false-positive case on CT occurred when a redundant duodenum was interpreted as a retroperitoneal tumor (*Fig. 6*). This mistake was made early in our experience before oral contrast was routinely administered during CT.

Two patients had false-positive lymphograms, a false-positive rate of 11%. One of these patients, who had lymphoid hyperplasia, was also over-read on CT scanning. The second, a most interesting case, was a patient with prostatic carcinoma (*Fig. 7*). The initial lymphogram was correctly interpreted as normal. A staging laparotomy was performed seven months later, with extensive periaortic node dissection confirming the absence of metastatic disease. Five months after the surgery a repeat lymphogram demonstrated enlarged nodes with dis-

APPROACH TO THE MANAGEMENT OF PELVIC MALIGNANCIES WITH CT AND LYMPHOGRAPHY

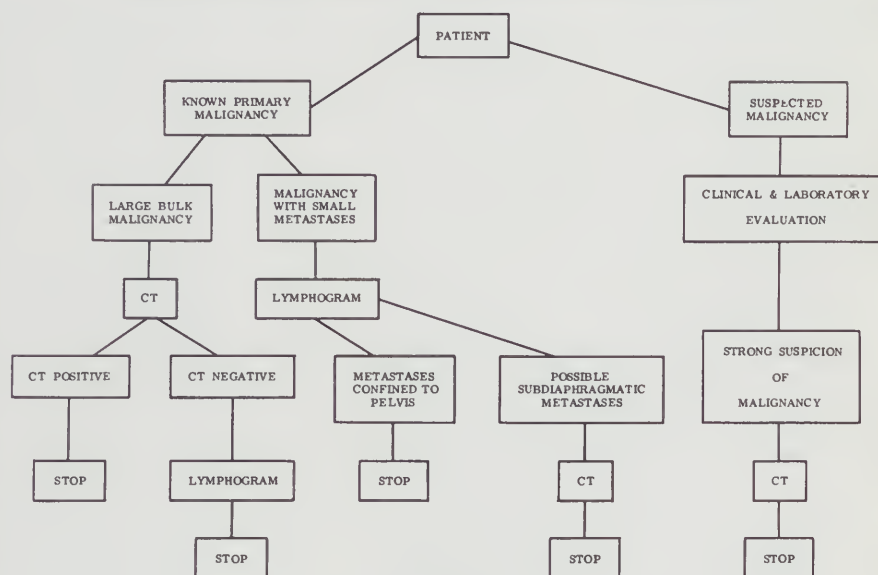


TABLE 2

torted architecture lateral to the aorta. The lymphogram was interpreted as positive for extensive metastasis from the patient's known primary prostatic carcinoma. The CT demonstrated a large aortic aneurysm, presumably related to the previous node dissection in which the aortic adventitia had, of necessity, been stripped. The patient died from complications of a ruptured aneurysm. In addition to the large aneurysm, the autopsy showed hemorrhage into periaortic nodes, apparently the cause of the distortion and enlargement of the nodes on the lymphogram.

Discussion

It has been suggested that CT might replace lymphography in the diagnosis and staging of lymphoma^{3,4,5,6} and testicular carcinoma.⁷ CT scanning has, in our hands, not been found to be a substitute for lymphography despite the limitations of the latter study.

Lymphography is invasive, less inclusive of body structures and systems, more time-consuming and technically more difficult.^{8,9} Lymphography is less satisfactory for

long-term monitoring because contrast usually does not opacify the periaortic and iliac nodes well beyond a maximum of 15 months. On the other hand, our experience with 38 histologic confirmed cases indicates that body CT scanning in its present state in a majority of institutions has an unacceptably high false-negative rate, 37% in our hands. For the same patients, lymphography had a false-negative rate of only 5%, a single patient with microscopic metastasis. The accuracy of lymphography in our series correlates well with other series.¹⁰

The high false-negative rate of CT scanning is caused, in part, by the inability to show architectural detail due to insufficient contrast resolution. CT scanning suffers from motion and density artifacts, and from difficulty with discrimination in thin patients. The false-positive rate for CT scanning, 16%, is comparable to lymphography, 11%. It is expected that the accuracy of CT scanning will improve with additional experience and with improvement in the technology of the procedure, particularly with shorter scanning times.

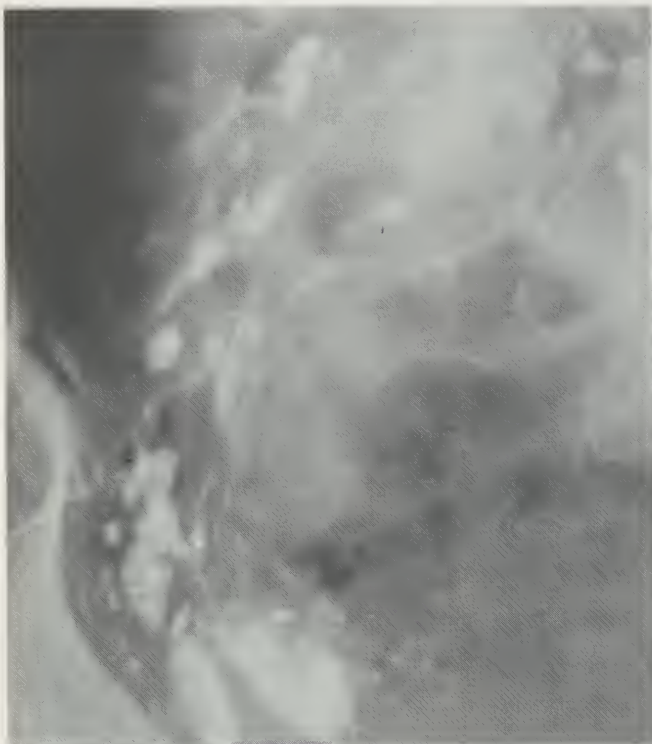


FIGURE 3A—This lymphogram reveals disorganization of the pelvic lymph nodes and disruption of the lymphatic channels in a patient with endometrial carcinoma. The CT scan was negative.



FIGURE 3B—Contrast is seen within the liver during the lymphogram, indicating lymphaticovenous communication. This sign is almost pathognomonic of malignant nodal involvement.

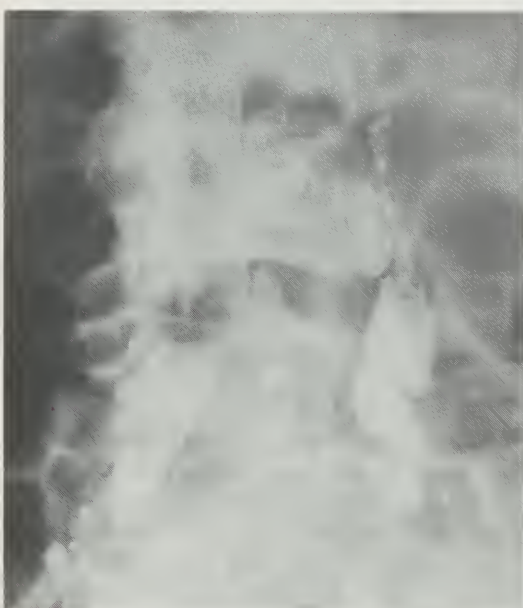


FIGURE 4A—Enlarged foamy nodes seen on this lymphogram were interpreted as lymphoma.

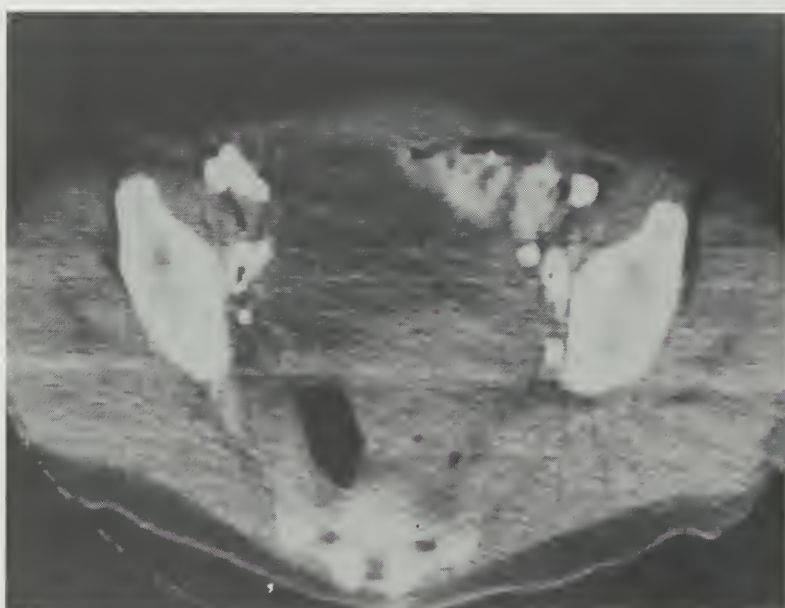


FIGURE 4B—The CT scan on the same patient was also interpreted as showing enlarged nodes consistent with lymphoma. Lymphoid hyperplasia was found at surgery.

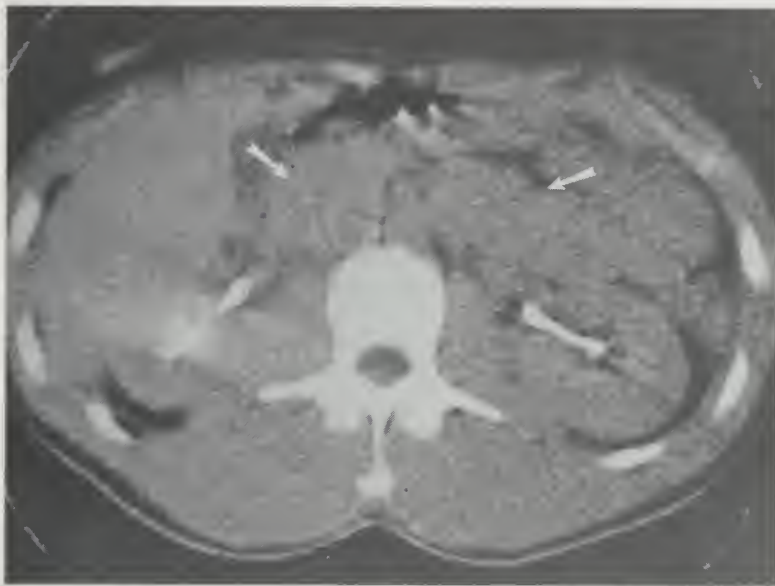


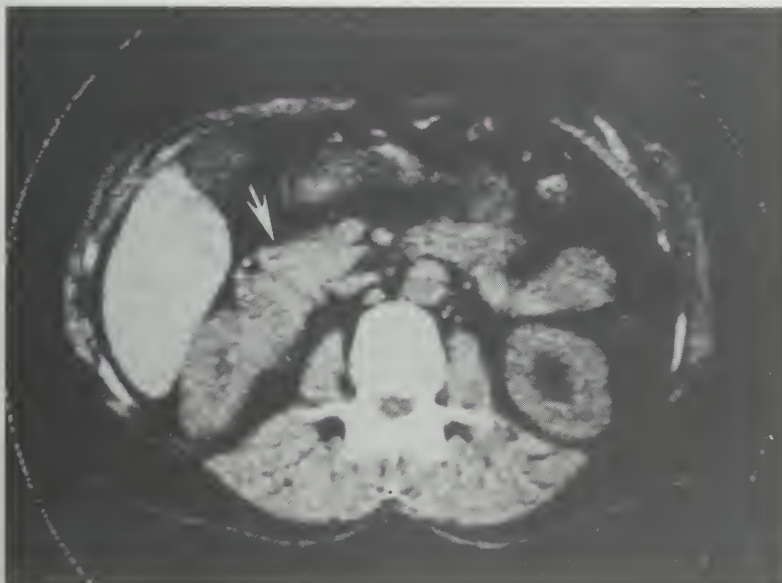
FIGURE 5A (above)—The CT scan in this thin patient was interpreted as showing widespread neoplasm invading the retroperitoneal fat planes.

FIGURE 5B (right)—Normal lymphogram. No abnormality was found at surgery.



FIGURE 6B (right)—The lymphogram was negative. A redundant descending duodenum was found at surgery; there was no evidence of neoplasm.

FIGURE 6A (below)—A mass in the duodenal fossa was interpreted as a tumor on this CT scan.



For large bulk malignancies such as lymphomas and testicular carcinomas, CT may be the initial examination of choice.^{2,7} If the CT scan is negative, the lymphogram should then be performed. CT is least effective in the early clinical stages of malignant lymphoma because normal or minimally enlarged nodes are difficult to detect.³ Our approach to pelvic malignancies is summarized in *Table 2*. Other diagnostic procedures such as ultrasound and nuclear imaging are not included in our discussion, but are of proven value in staging lymphomas and pelvic malignancies.^{7,11}

Either CT or lymphography can be used to monitor response to therapy, but CT offers certain advantages. It offers radiologic access to areas and structures not available to lymphography. In patients with wide-spread metastasis, the lymphogram frequently can demonstrate only the most caudal extent of the neoplasm.

The ability of CT to depict the

cephalic and lateral extent of nodal involvement is particularly important in radiotherapy planning.^{2,12,13} Retrocrural lymph nodes (*Fig. 8*) are well demonstrated on CT scanning.¹⁴ Lymphography requires a second injection if the monitoring is continued beyond a certain variable period of up to 15 months.

Disadvantages of CT scanning include the limited availability and the scheduling problems arising from the slow throughput. CT scanning is generally more expensive than lymphography for monitoring patients after therapy, considering that during the period of nodal opacification a single KUB film usually suffices for follow-up after the lymphogram. Particularly in following malignancies other than lymphomas in which lymph nodes are not markedly enlarged but are perhaps only partially replaced by tumor, CT scanning is limited by inability to show architectural detail.¹

Summary

Lymphography is the preferred examination in the evaluation of pelvic and lower extremity malignancies that have a tendency to replace lymphatic tissue without causing marked nodal enlargement.¹ CT scanning is preferred in large bulk malignancies such as lymphomas.^{1,2,3}

Because of the significant false-negative rate of CT scanning, if the CT examination is normal, lymphography should then be performed.

Either CT or lymphography can be used to monitor response to therapy. The approach should be tailored to the individual patient considering the advantages of each examination.

In the evaluation of patients in whom malignancy is suspected but has not been confirmed, CT is the examination of choice since it offers additional information as to the status of organs and structures other than lymph nodes.

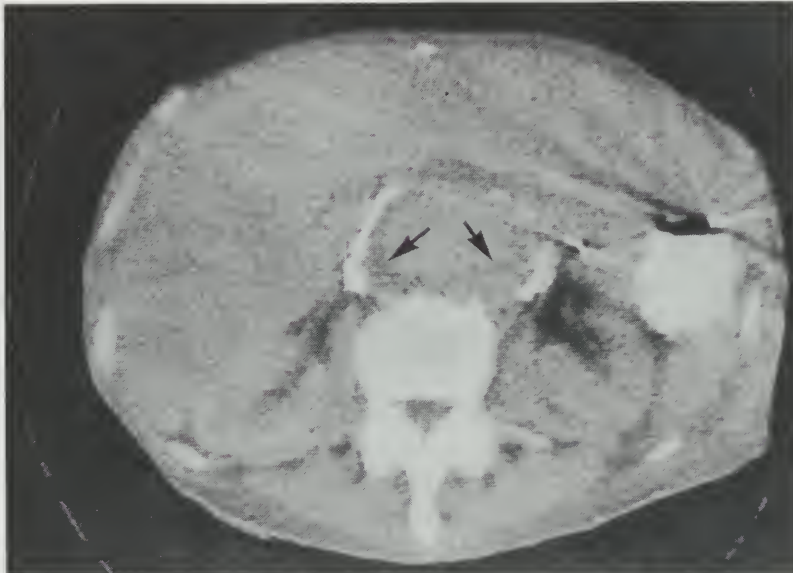


FIGURE 7A (left)—Enlarged, distorted lymph nodes are seen on this lymphogram of a patient with a previous radical node dissection for prostatic carcinoma.

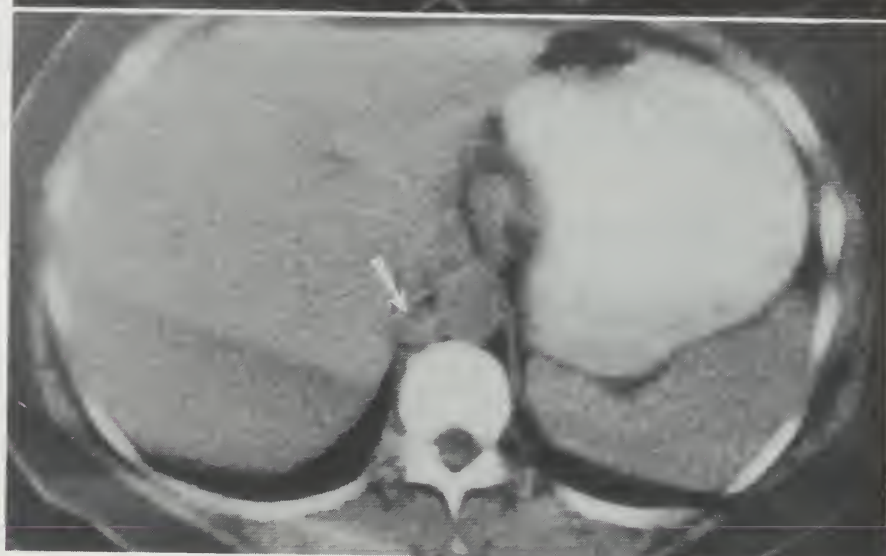
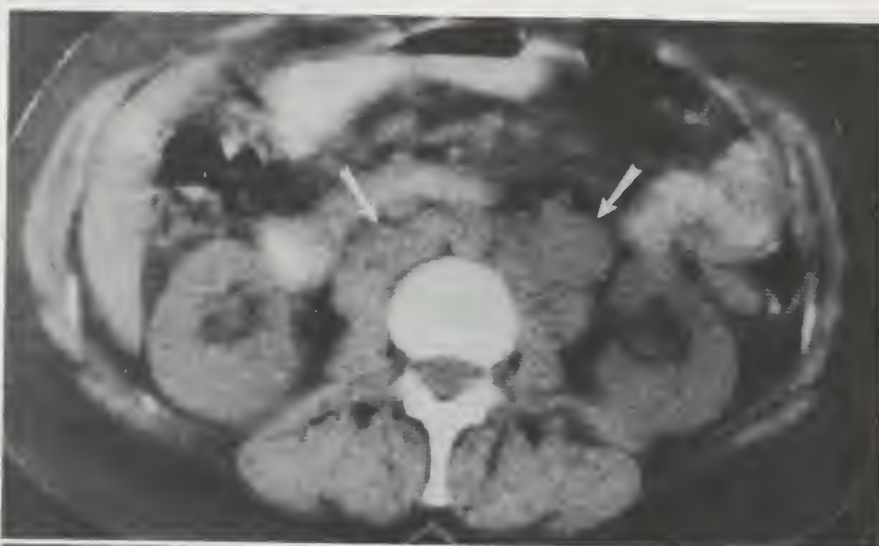
FIGURE 7B (above)—The CT scan demonstrates an aortic aneurysm. At autopsy a ruptured aortic aneurysm was found; the lymphographic defects are due to hemorrhage into the periaortic lymph nodes.



FIGURE 8A (above)—This lymphogram demonstrates well only the caudal extent of involvement with lymphoma.

FIGURE 8B (above, right)—The CT scan depicts widespread retroperitoneal tumor at L2.

FIGURE 8C (right)—Retrocrural lymphadenopathy is well shown. The extent of the lymphoma is better on the CT scan.



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PUBLIC HEALTH NOTES

The annual cost of illness and injury to Hoosiers is estimated to exceed \$5 billion. Per capita, this amounts to approximately \$1,000 for every man, woman, and child living in Indiana. These figures probably will increase, both in actual dollars and in share of the total budget. Thus, it is apparent that health, or the absence of it, is big business, and that it is essential that comprehensive, accurate data are available.

According to Dr. Robert A. Calhoun, statistician for the State Board of Health, "Data needs for health programs in the eighties will not be basically different from those needs of the past. At the same time, it may be expected there will be different areas of emphasis and intensity of approach."

Morbidity data. Over the past 80 years, the U.S. and its territories have developed an effective system of mortality statistics. Unfortunately, the same cannot be said concerning the reporting of illnesses and injuries not resulting in death.

Emphasis over the past decade on environmental factors and their effect on community and personal health make imperative the development of effective morbidity statistics systems. One such type of system is a hospital discharge reporting system. Twenty-five years ago, the State Board of Health demonstrated that a program involving morbidity reporting on each discharge from Indiana general hospitals was technically feasible. After several years, that program was discontinued because, at that time, it was not felt the data obtained warranted the expenditures involved in maintaining and expanding the program. Since then, many similar projects have been developed in other states; with accelerating health care costs, such a program

may now be economically justified.

Farther down the road, but equally important, are systems involving collection of morbidity data from physicians' offices. To date, such programs have been conducted on a statistical basis: a sampling of physicians has been involved and only certain of their patient records. To be effective, such a system must eventually include each physician and each of his patients. Obviously, efforts of this type would involve large expenditures; and to date, it has been impossible to justify the costs involved. While attitudes on this matter are changing, there are at least three other steps which must be taken before such a permanent project can be implemented.

First, the physician must be guaranteed that the confidentiality of the doctor-patient relationship will not be violated. Proper safeguards in the coding and use of the data can meet this concern.

It is essential that the medical profession be made true partners in the program. Too often, physicians have been asked to provide information (at considerable effort and expense) for studies and have not in return been provided useful information. In such circumstances, there is little reason why the physician should make an effort to cooperate.

Finally, it is necessary that the physician be able to take part in such a morbidity reporting program with no net cost to him and, perhaps, even a financial gain.

Although it seems unlikely that physician morbidity reporting systems will be widely operational by the end of this decade, it is probable that extensive efforts in this direction will be made in the next 10 years.

Population data. The 1980 census has probably received more ad-

verse criticism than any of its 19 predecessors. This is not because it was a poorly conducted census, but because more and more people have a vital interest in accurate population data. Many programs at federal, state and local levels depend on population figures for funding. Population data are also indispensable for planning purposes.

As we all know, planning has been recognized as an integral part of health programming for at least the last 15 years. Any plan requires population figures for future years; as a result, *projecting* population has also become essential. During the past year effective steps have been taken toward bringing federal and state projections programs together. There is little question that population projections will receive increasing attention.

Environmental data. In the past, federal and state statistical programs have paid little attention to environmental data. This has been not because it is unimportant, but because it has been difficult to develop into a meaningful system. Since the environment has become almost universally recognized as a factor in human health, this situation can no longer continue. Relating environmental information with other health indicators will be an essential part of health statistics systems in the eighties.

There will undoubtedly be other areas of health data emphasis in the next 10 years. Whatever their other areas of concern may be, it seems certain that health statisticians will devote a great deal of their attention to morbidity, population and the environment during the coming decade. The State Board of Health will continue to actively pursue a coordinated and cooperative approach for data collection with the Indiana State Medical Association and other appropriate agencies.

CME QUIZ

On the Prevention of Amputations

CONTINUED FROM PAGES 145-147

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.

1. The onset of occlusive arterial disease is often heralded by
 - a) persistent, painless swelling of the lower extremity.
 - b) fungus treatment of the skin resistant to treatment.
 - c) aching of the leg when walking, relieved by rest.
 - d) foot pain on weight-bearing.
2. The most serious complication of occlusive arterial disease is
 - a) cutaneous atrophy.
 - b) Raynaud's syndrome.
 - c) intermittent claudication.
 - d) gangrene.
3. The treatment most likely to produce complete relief of intermittent claudication is
 - a) vasodilator medication.
 - b) direct surgical re-vascularization.
 - c) cessation of use of tobacco.
 - d) correction of obesity.
4. The local use of heat for ischemic extremities is contra-indicated because
 - a) it is a painful treatment.
 - b) it may produce necrosis by increasing local metabolic demands while anatomic arterial obstruction prevents a proportional increase in blood supply.
 - c) it produces shunting of arterial blood to the opposite extremity.
 - d) it may augment local edema.
5. One does not have to worry about gangrene being precipitated in an ischemic extremity if
 - a) the patient is allowed to walk out of doors for extended periods on ice or in subzero weather in winter.
 - b) the patient self-treats corns, callouses, and ingrowing nails.
 - c) the patient self-treats itching foot rash by application of topical agents such as Campho-phenique, calamine lotion with phenol, or strong iodine solution.
 - d) the patient uses normal saline solution at 90° - 95° F., as determined by a bath thermometer, for a foot bath.
6. If the patient with occlusive arterial disease is found after thorough medical examination *not* to be a candidate for surgical treatment to improve the circulation,
 - a) no other treatment is available.
 - b) he should be informed of the nature of his disease and urged to resign himself to the ultimate dire consequences.
 - c) he should be informed that, even though an operation may not be indicated, regular medical treatment administered under supervision of his physician can allow him to continue to lead a relatively normal life.
 - d) he should be advised to move his residence to a warm climate.
7. Which of the following advice is *not* good for the patient with occlusive arterial disease?
 - a) Never use tobacco in any form nor in any amount.
 - b) See a podiatrist regularly for preventive foot care if your eyesight is poor or if you cannot easily bend over to reach your feet.
 - c) Avoid the use of elastic stockings and tight shoes, since such may precipitate gangrene in the ischemic foot.
 - d) Disregard itching, cracking, and peeling of the skin of the feet, since this is usually due to "athlete's foot" which is not a serious condition requiring prompt medical attention.
8. The following is usually safe in patients who have ischemic extremities:
 - a) Surgical removal of an entire nail for ingrowing toenail.
 - b) Surgical operation for bunion.
 - c) Surgical removal of varicose veins.
 - d) Daily gentle bathing of the feet with a mild soap in lukewarm water and daily careful inspection for injuries or discoloration.

Following are the answers to the CME quiz that appeared in the February 1981 issue of THE JOURNAL: "Mucopolysaccharide Storage Disorders," by Rebecca S. Wapner, M.D.

- | | |
|------|-------|
| 1. c | 6. b |
| 2. c | 7. a |
| 3. c | 8. d |
| 4. c | 9. a |
| 5. d | 10. d |

February CME Quiz Answers

Answer sheet for Quiz: (Amputations . . .)

- | | |
|------------|-------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for credit for this month's quiz, send your completed, signed application before April 10, 1981, to the address appearing at the top of this page.

CONTINUED ON PAGE 174

WILLIAM M. DUGAN, JR., M.D.
Clinical Oncology Center
Methodist Hospital of Indiana, Inc.

New information from
Indiana Division
American Cancer Society, Inc.
4755 Kingsway Dr., Suite 100
Indianapolis 46205

**EVERY PHYSICIAN'S OFFICE—
A CANCER DETECTION CENTER**

CANCER CORNER

International Cancer Congress

Some 12,000-14,000 physicians, researchers, allied health personnel and lay people are expected to attend the 13th International Cancer Congress in Seattle, Sept. 8-15, 1982.

Theme of the Congress, held under the auspices of the International Union Against Cancer, will be "Cancer Campaign and Organization in Cancer Control: Programmes for the Public and the Health Profession."

Ten main events, each handled by a moderator, will be conducted. They are: funding a cancer control program; public education for major cancer sites; cancer education programs in schools; mass media in cancer control; role of professionals in public education; cancer prevention and epidemiology; smoking and cancer—a comprehensive approach; screening for early cancer detection; rehabilitation of cancer patients and support groups; and the advanced cancer patient and the hospice concept.

ACS National Conference

The American Cancer Society National Conference on Human Values and Cancer will be conducted April 23-25 at the Washington Hilton, Washington, D.C.

Objective of the conference will be to improve the ability of the health professional to interact successfully with cancer patients and their families.

A multi-disciplinary group of experts will explore the changing needs of cancer patients and approaches to problem solving in communication, education, ethics and psychosocial support.

Attendance is open to all members and students of the medical and related health professions as well as to interested lay persons concerned with health care delivery.

For details, please contact your local ACS or write to the National Conference on Human Values and Cancer, American Cancer Society, 777 Third Ave., New York, N.Y. 10017.

New Publications

The Prostate, new quarterly published by Alan R. Liss, Inc., 150 Fifth Ave., New York 10011. Avery Sandberg and Gerald Murphy are editors in chief. Will report on all facets of clinical and basic studies involving the prostate and other male accessory sex glands. \$55 a year.

If You Find a Lump In Your Breast, by Martha McLean and Jacqueline Struthers. Bull Publishing Co., P.O. Box 208, Palo Alto, Calif. 94302. Paperback, \$2.95.

Biology of Ovarian Cancer, workshop proceedings edited by E.D. Murphy and W.G. Beamer, published by UICC, rue du Conseil-General, 3, CH 1205 Geneva, Switzerland, 16 Swiss francs plus postage.

Malignancy and the Hemostatic System, monographs of the Mario Negri Institute for Pharmacological Research—edited by Maria Donati, John Davidson, and Silvio Garattini. Raven Press, 1140 Avenue of the Americas, New York 10036, \$17.

Cancer Patient Survival Experience, published by NCI and prepared by Max Myers and Benjamin Hankey of the Division of Cancer Cause & Prevention. NIH Publication No. 80-2148, available free from the NCI Office of Cancer Communications, Bethesda, Md. 20205.

Innovations in Cancer Risk Assessment, symposium proceedings edited by Jeffrey Staffa and Myron Mehlman, Pathotox Publishers, Inc., 2405 Bond Street, Park Forest South, Ill. 60466. \$29.

Medical Complications in Cancer Patients, edited by Jean Klastersky and Maurice Staquet, EORTC monograph, Raven Press, \$29.

Dangers of Smoking—Benefits of Quitting and Relative Risks of Reduced Exposure, booklet available free from the American Cancer Society, 777 Third Avenue, New York 10017, or local ACS offices.

American Cancer Society Professional Education Activities On Smoking And Health

Following is a summary of Professional Education program activities on smoking and health carried out since the introduction of Target 5 in the fall of 1976:

- Development and distribution of "model" resolutions on smoking to national and state professional associations.
- Production of a Professional Education film, "The Physician's Role in the Control of Lung Cancer," with 220 prints distributed to ACS divisions.
- Production of a HELP QUIT KIT to aid physicians in dealing with their patients who smoke. A total of 34,000 copies have been distributed to ACS divisions, covering 13% of all practicing physicians.
- Field test of HELP QUIT KIT carried out, measuring its impact in getting physicians to spend more time with their patients who smoke.
- Preparation of several articles on the physician's role in smoking control which appeared in *CA. Cancer Journal for Clinicians*, and subsequently were made available as reprints for physicians.
- Introduction of the smoking and health subject at various ACS National Professional Education Conferences and those of other professional organizations.

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BOOK REVIEWS

Radiation in Medicine and Industry

A. P. Jacobson, Ph.D. and G. P. Sakalosky, Ph.D. Copyright 1980. Published by the Pennsylvania Medical Society, 20 Erford Road, Lemoyne, Pa. 17043. 33-page booklet, free of charge.

This small book from the Pennsylvania Medical Society, 33 pages long, is an effort to teach and to dispel hysteria about radiation, particularly radiation from medical x-ray sources and nuclear power plants. The book is well organized and written in a simple, clear style with short, meaningful definitions and diagrams for complex events.

There are a number of facts given to provide benchmarks for the reader in evaluating background radiation levels, radiation levels from nuclear reactors, radiation levels from the airborne radioactive material from a coal-burning power plant, and the permissible radiation levels to people in or near nuclear power plants. The known effects of high-level radiation doses on humans are included, as are the speculative or hypothetical effects of tiny doses of radiation on pregnant women and the population at large. The linear hypothesis of the risk of leukemia from low doses of radiation, for example, is included. There is considerable detail given to this linear type of hypothesis near the close of the book—extrapolating in a line down to zero doses from known effects at high doses.

The authors state, "There is no risk-free dose of radiation. No matter how small, any dose carries a small risk of cancer or hereditary defects. Thus, to use radiation as a tool for humanity, one must balance the risks against the benefits derived."

Also in using this linear hypothesis and extrapolating down to zero dose, the authors state "concerning congenital deformations caused by radiation, geneticists agree on their estimates. In one million newborn children each of whose parents had received a radiation dose of 1,000 millirem (10 times background radiation), it is predicted from the best available data that between 5 and 75 of these children will show a congenital deformity. This should be compared with the fact that 10% of all children born today have some congenital deformity; that is, that of one million births a day as many as 100,000 children will show some congenital deformity.

It is material like this at the end of the book that destroys any effort the authors may have made to reassure the population. The authors are not physicians. A practicing physician knows that telling an expectant mother or couple that a one-roentgen radiation dose can increase the chance of having a deformed child will upset many and send some of them into hysteria. Such statistical conjurings as these are by no means reassur-

CONTINUED ON NEXT PAGE

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Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate. In Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Dosage and Administration: Anusol-HC Suppositories—

Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories—boxes of 12

(N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

Anusol-HC Cream—one-ounce tube (N 0071-3090-13) with plastic applicator.

Store between 59°-86°F (15°-30°C).

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BOOK REVIEWS

CONTINUED FROM PRECEDING PAGE

ing; and the authors, having made a brilliant start in the beginning of their book by pointing out that we have been evolving in radiation for many years and that radiation is like fire that mankind has used for 500,000 years—learned to control and live with—wind up beating us over the head with this linear hypothesis nonsense and extrapolations down to zero doses. This work is not reassuring.

It's like telling me that any dose of light or heat from my household electric lights or furnace will cause some disease or injury. Nonsense. I enjoy reading in my well-lit home with the furnace or stove warming me in winter. To be sure, if I grab a hot bulb in my bare hand or throw gasoline on the fire, I'm in trouble. I've exceeded the threshold.

Most physicians recognize that doses of physical or chemical agents must reach a threshold before they begin to stimulate or harm an organism. The authors, like most radiation fighters, do not subscribe to a threshold dose of radiation as being necessary before a bad event occurs. They do not quote and apparently have no knowledge of the work by Doctors Gowen and Stadler, summarized in the October 1967 issue of *Environmental Research* ("Life and Environs of Continuing Higher Levels of Added Radiant Energy from Puberty to Death as Expressed by Mice"). That article showed there were no birth defects in mice exposed to constant cobalt radiation from birth to death through 35 generations. No more birth defects in the progeny of these mice exposed to radiation levels from 0.15 roentgens per hour to 3.48 roentgens per hour when these mice were compared with control mice that lived outside the cobalt radiation.

And with regard to somatic effects, the excellent research by Gowen and Stadler showed that the dose on the somatic cells has to be raised to about 10,000 times the normal background dose that mice (and men) receive, before significant effects such as a few days life shortening occur.

This small book has a delightful quote inside the back cover from Nobel laureate Rosalyn Yalow who pointed out to a Congressional Committee that, were their standards followed, the amounts of radioactive potassium and carbon present in a normal human being would require the person, if he or she were a dead laboratory animal, to be disposed of as nuclear waste.

While this book has much information in the beginning and middle, the linear extrapolations down to zero dose near the end make it useless for teaching or dispelling hysteria. I cannot recommend this book.

RICHARD J. NOVEROSKE, M.D.
 Evansville
 Radiology

The Human Patient

Naomi Remen, M.D. Copyright 1980, Anchor Press, Garden City, N.Y. 238 pages, \$10.95.

This has been the most unusual publication I have reviewed, considering its approach, relative to the patient, its survey of health and illness on the psychological basis, and the therapeutic benefits of knowing the patient as a human being.

In light of this concept of the human patient, I will quote the Plaque which addresses the Hook Rehabilitation Center at Community Hospital, Indianapolis: "Dedicated to the advancement of human dignity through the fulfillment of human potential." This statement is in complete accord with the opinion and the expression of the "patient" as portrayed by Dr. Remen.

Unfortunately, with the rapid advancement in technology, the sophisticated specialization, and the limited scope of patient care, we as professionals have overlooked the basic consideration that the person being treated is a human. The diagnosis and the course of therapy is certainly important but the underlying reaction of patients is most important in promoting physical and mental well being.

Should an individual who, through stress, regardless of the cause, become incapacitated, greater efforts should be directed toward determining the basic strength in the area of courage, compassion, wisdom, and imagination to defend himself against the emotional exhaustion and debilitation state. The author very clearly outlines the need of more effective measures in health care not only in how to stay well, but, also, how to get well when confronted by an illness.

Dr. Remen has very cleverly and extensively outlined the role the professional should take to promote better health care, both as a preventive measure to preserve health, and to bring back a better health state if illness does occur and to fortify the well being of the sick person when the illness is terminal or non responsive to therapy.

This new concept of an adjunct in the treatment is the better understanding of the psychological aspect in each case, the exploration of the common sense and the establishment of collaborative care. This is not new in the practice of medicine as this same concept had been noted many centuries ago, but to date no publication has been as inclusive or so deeply explorative as this excellent summary of the "human patient."

I suggest that all persons considered to be medical professionals read this book for a better understanding of every patient and all levels of health care and an improved relationship with the people generally.

IRVIN W. WILKENS, M.D.
Indianapolis
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FUTURE FILE

Occupant Restraint Seminar

All methods of passenger safety restraint systems for automobiles will be discussed by experts at the International Symposium on Occupant Restraint to be held June 1 to 3 at Hotel Toronto, Toronto, Ontario, Canada. For information write AAAM, P.O. Box 222, Morton Grove, Ill. 60053.

Office Management Workshops

Five workshops in medical office management will be conducted by Conomikes Associates at the Chicago Radisson Hotel during the week of July 6-10. The subjects are limited to one day each.

Monday will be on "Computers in Medical Practice," Tuesday on "Patient Flow Management," Wednesday on "Financial Management," Thursday on "Personnel Management," and Friday on "Advanced Leadership & Management Techniques."

The fee for each day is \$95. The courses are guaranteed to be helpful and are backed by a money-back guarantee. Registration may be accomplished by mail to Conomikes Associates, Inc., 4270 Promenade Way, Marina del Ray, California 90291, or by calling toll free (800) 421-6512.

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April Indiana AAPS Meeting

Dr. Robert Heimbürger of the I.U. Medical Center will speak on "A View of Medicine in the Western Pacific" during a meeting of the Indiana Association of American Physicians and Surgeons Saturday, April 25.

A business meeting will convene at 4 p.m., followed by an \$8-per-plate smorgasbord dinner at 6 p.m. Dr. Heimbürger, whose talk will be based on his recent sojourn of seven months in Korea and the Orient, will speak at 7 p.m.

The meeting will take place at the Heritage House Smorgasbord, 4990 U.S. 31 South, Indianapolis; it is located two blocks south of I-465. All physicians and spouses are invited, and no reservations are necessary.

JCAH Rules to be Discussed

A regional seminar being offered by the Illinois Chapter of the American College of Utilization Review Physicians will be conducted April 26 at the Drake Hotel, Oakbrook, Ill.

Objective of the meeting will be to familiarize members and guests with the ever changing requirements of the Joint Commission on Accreditation of Hospitals concerning quality assurance measurements as well as increasing knowledge of utilization review. Category 1 credits will be awarded.

Contact Peter J. Talso, M.D., program chairman, ACURP National Office, 1108 N. Second St., Harrisburg, Pa. 17102.

Ambulatory Surgery Seminar

"Ambulatory Surgery" will be the subject of a seminar to be conducted at the Chicago Marriott Hotel on May 6, 7 and 8, by the Freestanding Ambulatory Surgical Association. Full particulars will be announced later. In the meantime call Robert C. Williams, FASA executive director, at (602) 258-1528.

CME Quiz . . .

CONTINUED FROM PAGE 167

9. If acute arterial occlusion of an extremity occurs, which of the following is *not* true?
- a) The affected limb should be elevated.
 - b) The affected limb should be placed in a slightly dependent position.
 - c) The affected limb should be wrapped loosely in a soft blanket.
 - d) Immediate medical attention should be sought.
10. Which of the following statements is *not* true?
- a) Traumatic lesions of ischemic limbs can usually be healed if treated promptly.
 - b) Infected or ulcerated lesions of ischemic extremities, if not too extensive or too chronic, can usually be healed without surgery, whether or not diabetes mellitus is present.
 - c) Amputation is inevitable in all cases of gangrene.
 - d) Gangrene can usually be prevented if early treatment of occlusive arterial disease is provided.

ITS Annual Meeting in April

The Indiana Thoracic Society (ITS) will hold its annual meeting and scientific sessions on April 15-16 at the Indianapolis Marriott Inn, I-70 East at the Shadeland Ave. exit.

The program, "Respiratory Infections: Challenges and Opportunities," will feature guest lecturer and keynote speaker Waldemar G. Johanson, M.D., Professor and Director of Pulmonary Medicine, University of Texas Health Science Center at San Antonio. Dr. Johanson's lecture will be entitled "Pathogenesis of Hospital Acquired Pneumonia."

In addition, scientific sessions will be presented on chest radiology, histoplasmosis, tuberculosis, legionnaire's disease, and pneumonia. Other features include a workshop for respiratory therapists on pulmonary rehabilitation and home care, and a research seminar at which scientific papers will be presented.

For more information about program registration, contact Dennis Alexander at the American Lung Association of Indiana, 30 E. Georgia St., Rm. 401, Indianapolis, Indiana 46204, or call 317-632-3383.

Technology Assessment Forum

A technology assessment forum to discuss the key economic, ethical, and social issues related to coronary bypass surgery will be sponsored by the National Heart, Lung and Blood Institute at the Sheraton Washington Hotel, Washington, D.C. April 21 - 23. There is no fee.

Emergency Care Conference

"Emergency Care" will be highlighted at the Seventh Annual Midwest Spring Conference sponsored by Moline Public Hospital April 22 - 23. The fee is \$60. CME credits will be available to physicians, nurses, and E.M.T.s.

Write or phone Ardith Nelson, R.N., Moline Public Hospital, 635 Tenth Ave., Moline, Ill. 61265, phone (309) 757-3109.

Michigan CME Course

A two-day program designed to review recent research and practice developments which highlight the family's role in health promotion will be conducted at the Sheraton-Southfield Hotel, Southfield, Mich., April 10-11.

The program, entitled "Disease Prevention/Health Promotion: The Family as the Focus for Health Promotion," is approved for nine Category 1 hours; AAFP prescribed credit is pending.

For information, contact Wayne State University School of Medicine, Division of CME, 4201 St. Antoine, 9B-32 DRHUHC, Detroit, Mich. 48201. Tel: (313) 577-1180.



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It's Your Turn

The Public and the Press (We Hope) Are About to Descend



JOYCE WOLF

Public Relations Assistant
Indiana State Medical Association

While physicians in Indiana have been familiar with the Voluntary Effort for more than three years, the statewide public information campaign has been in effect only since last fall. Gathering momentum gradually, our campaign is about to take off in full force. And that means you may not only be hearing about it from us—you'll be hearing from your patients and, perhaps, the media.

Four public service announcements filmed free of charge by WTTV-4 in Bloomington have been distributed to all Indiana television stations by VE auxiliary coordinators. The auxiliaries, hospital administrators and public relations directors also have received packets of information dealing with monthly themes to spark newspaper and house organ articles, television and radio talk show interviews and coverage.

The first monthly theme, promoted during February and March, is "Your Doctor As Your Health Manager."

Perhaps you'll notice your patients coming in better prepared for office visits, with questions, symptoms; and relevant history written down. That was the suggestion made in the TV spot aired last month. Adequate preparation on the patient's part may make the office visit more time-efficient and productive, saving calls back to the office with questions the patient "just remembered," and saving the patient's peace of mind when he or she doesn't want to later "bother the doctor" with a question that went unasked.

Articles and information designed to initiate media coverage for "Your Doctor As Your Health Manager" month may come back to you directly or indirectly. You may be approached directly by the press or broadcast media with questions on the subject. Indirectly, patients who read or heard about the various subjects covered may approach you with questions relating to their own treatment or lifestyle.

Possible questions from patients or the media might involve such "health manager" functions as

complete, periodic physical examinations—their advantages, cost-effectiveness, drawbacks or necessity; the role of the physician in making patient lifestyle recommendations; and the success rate of such recommendations. As physicians are well aware, only the patient ultimately determines his or her own lifestyle. While the physician may make recommendations, he cannot stand over a patient at mealtime and whisk away that extra plate of chocolate cake, or trot along on a morning jog to offer encouragement. Patients and the media, though, will be interested in what you *can* and *have done*, in your success stories. As patients' awareness of their own responsibilities for good health grows, we hope you'll be asked more and more questions about good health practices as ways to cut health care costs in preventive measures.

Be prepared to answer more questions on diet, exercise, physical examinations, immunization, and other health management concerns. With patient awareness hopefully spurred on by this month's VE focus, we encourage you to make your patients more aware of their own responsibilities for good health and the Voluntary Effort.

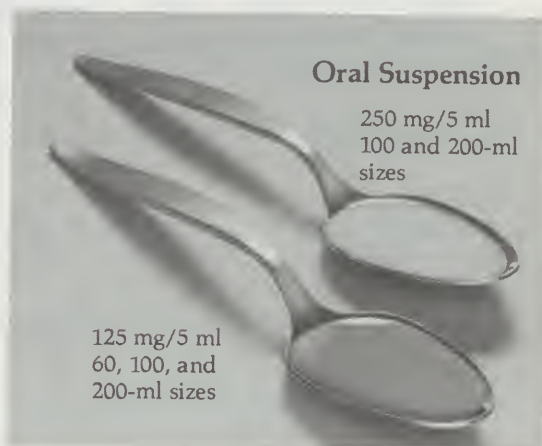
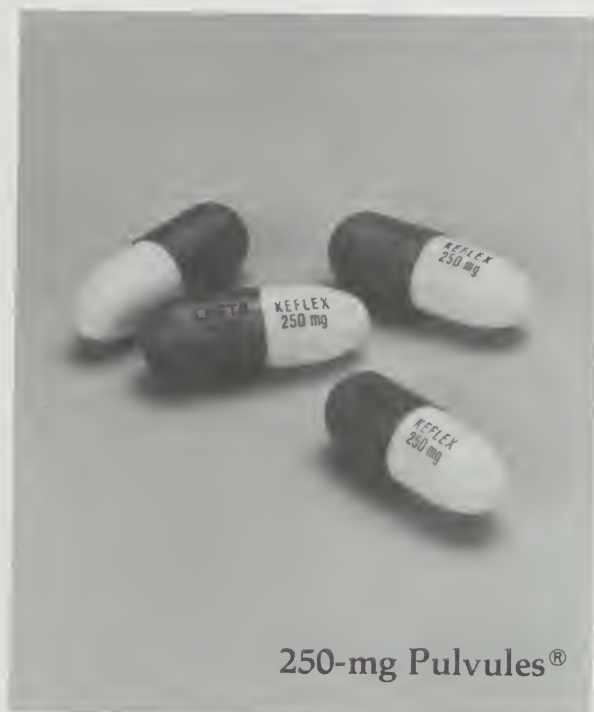
YOU CAN HELP

You can help the Indiana Voluntary Effort by letting us know how effective our public information campaign has been. If your patients mention the TV spots or follow-up articles and interviews to you, if you note an increase in "health management" concerns on your patients' part, or if you are approached by the media, please let us know. For more information and assistance in dealing with the media, or to give us some feedback on the VE, call Joyce Wolf or Bob Sullivan at ISMA headquarters, (800) 382-1721, or write 3935 N. Meridian St., Indianapolis 46208.

VE THEMES

The VOLUNTARY EFFORT campaign is continuing through 1981 with four themes-of-the-month advising individuals how they can save health care dollars. Kits with sample radio spot announcements, articles for house organs and public media, and ideas for interviews will be mailed to hospitals and auxiliary VE coordinators. TV spots also will be part of the theme of the month. The theme for February-March is "Your Doctor As Your Health Manager"; April, "Personal Lifestyle"; May, "Use of the Hospital Emergency Room and Safety Tips"; June, "Drugs."

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AUXILIARY REPORT

Dorothy (Mrs. Herbert A.) Schiller
President, ISMA Auxiliary

Hulda Classen Doctor's Day Chrm.

March 30 is the official Doctor's Day. In 1933 this day was set aside to commemorate the day in 1842 when Dr. Crawford Williamson Long became the first acclaimed physician to use ether as an anesthetic agent in a surgical technique. The anesthetic power of ether had been demonstrated at "ether frolics" during which participants took small amounts of ether to experience its strange effects. Long had also experimented with its effects on himself. On March 30, 1842, he gave ether to a patient and painlessly removed a tumor from his neck. He did not announce his experiment at the time, and it re-

ceived no professional or general publicity. Long himself remained unaware of the full value of anesthesia in surgery, although he continued to make occasional use of ether anesthesia. Finally, in 1849, he published a description of his experiments.

Long's experiments with ether and also the experiments of William T. G. Morton made anesthesia safe for surgery. These two men from the United States rank with Pasteur of France and Koch of Germany who proved that sterilization kills germs; Semmelweis of Hungary and Lister of England who used the knowledge of germs to make surgery safe. They introduced the basic ideas of antisepsis and asepsis.

Medicine advanced very rapidly in the 1800s and continued to advance in the 1900s. The challenge of future advances is calling our physician spouses to new heights. Who knows—the "marijuana parties, et al", may be forerunners of 21st century medical discoveries.

The red carnation is the symbol for the doctors who have so nobly worked to provide medical care for those who live in our communities. Because we appreciate their efforts we want to show our gratitude. On Doctor's Day, March 30, we encourage each auxiliary member to pin a red carnation boutonniere on the lapel of the physician spouse. We are proud of the profession of our spouses.

Academy Questions New Eye Surgery

A NEW SURGICAL technique for the correction of nearsightedness called radial keratotomy is still in the experimental stages of research and needs additional controlled studies before it is widely adopted, the Indiana Academy of Ophthalmology (IOA) has warned.

"We believe use of the surgery is premature," said Dr. Richard Boling, president of the Indiana Academy of eye surgeons and physicians. "We advise patients, ophthalmologists and hospitals to wait until additional research is completed."

The surgery involves cutting the cornea of the eye with a series of deep incisions. The incisions are intended to be deep enough to weaken the tissue so that the internal eye pressure causes the edge of the cornea to bulge slightly, thereby

flattening the central portion of the cornea which improves focusing. The incisions result in permanent corneal scars.

Dr. Boling said the council supports continued research on the surgery. "At this time there has not been substantial follow-up studies on patients to track the long-term effectiveness of the surgery. There is also a question on long-term effect of the scar," he said.

The academy spokesman said the surgery may or may not prove effective for future use. "Right now some medical centers are experimenting with the surgery and the academy will monitor these results."

He said the medical centers per-

forming the research are not charging patients because the surgery is experimental. He also indicated that no insurance programs will pay for this kind of medical treatment because it has not been proven effective or endorsed by the traditional medical authorities.

The Indiana Academy's statement of warning on the new surgery follows a similar statement by the National Advisory Eye Council, the federal government's chief source of support for vision research.

The Council expressed "grave concern about potential widespread adoption of the operation intended to correct nearsightedness, a common condition that can be easily and safely corrected by the use of eyeglasses or contact lenses."



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NEWS NOTES

Many AMA Films Available

Films from the AMA medical health film library are available on loan to physicians, medical societies, medical schools, hospitals, and other professional medical groups.

Available are hundreds of 16mm films in 21 categories for health care professionals and nine categories for the public.

For instructions about ordering, request a complimentary 1980 Medical Health Film Library Catalog, Dept. of Audio-Visual and Self-Study Programs, AMA headquarters.

Dr. Athar Speaks in Pakistan

Dr. Shahid Athar, Indianapolis, was an invited guest and guest lecturer at the International Conference on Advances in Medical Sciences at Karachi, Pakistan on December 17 & 18, 1980. He presented an article on Diabetic Ketoacidosis during the Conference and later lectured on Diabetes Insipidus at the Jinnah Post Graduate Medical Center in Karachi. He also served on a panel of experts at the Pakistan Medical Association on the subject of Endocrinology.

Less Government Interest in HMOs?

The federal government will lessen its HMO involvement during the 1980s, predicts James F. Doherty, head of the national organization of prepaid health plans. According to *Medical Economics*, some insurance companies, now heavily involved in developing HMOs, are complaining about federal money subsidizing their competition. Instead of developing HMOs, Doherty sees the prime federal role as one of stimulating private HMO investment and overseeing compliance with standards of quality and funding.

AMA Calls for End to PSROs

The AMA House of Delegates has voted to seek repeal of health planning legislation and to set a new policy calling for elimination of PSROs.

In both cases the delegates, acting at their interim meeting in December, imposed responsibility on the profession to expand its work in the areas now controlled by the federal programs.

The action also calls for the AMA to develop principles for a voluntary, locally based health planning program. In its statement seeking the end of "all government directed peer review programs, including PSRO," the House said the AMA's policy would be "to continue professionally directed efforts to ensure that care provided to patients is of high quality, appropriate duration, and is rendered in an appropriate setting at a reasonable cost."

Laws Affecting Business Described In New Labor Department Publication

The U.S. Dept. of Labor has published a booklet to help business, particularly small employers, understand and comply with major laws and regulations administered by the department.

Entitled "Major Laws Administered by the U.S. Department of Labor Which Affect Small Business," the booklet describes in non-technical language the provisions of laws such as the Comprehensive Employment and Training Act (CETA), the Fair Labor Standards Act, the Occupational Safety and Health Act, and the Employee Retirement Income Security Act.

The booklet briefly describes 20 laws and regulations, lists the agency within the department responsible for administering the law, and gives a regional address and phone number where employers can get more detailed information.

The booklet is available from the Office of the Assistant Secretary for Administration and Management, U.S. Department of Labor, 230 S. Dearborn, 10th Floor, Chicago 60604. Tel: (312) 353-3727.

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Here and There . . .

. . . **Dr. John A. Forchetti** of Chesteron has been elected a Fellow of the American College of Cardiology.

. . . **Dr. Donald F. Moore** has announced his retirement as medical director of Larue D. Carter Memorial Hospital, Indianapolis, ending 25 years in that position.

. . . **Dr. Lloyd L. Hill** has been installed as president of the medical staff, Dukes Memorial Hospital, Peru.

. . . **Dr. Charles H. Caylor**, president of Caylor-Nickel Hospital, Bluffton, has been named chief medical director of Celina National Life Insurance Co., Celina, Ohio, succeeding **Dr. Dillon D. Geiger** of Bloomington.

. . . **Dr. Alvin J. Haley**, ISMA president, has been appointed to the Committee on Members' AAFP Insurance and Financial Services of the American Academy of Family Physicians.

. . . **Dr. Stephen K. Nugent** has become director of Pediatric Intensive Care at Indianapolis' Methodist Hospital, Children's Pavilion. He formerly was associate director of Pediatric Intensive Care at The Johns Hopkins Hospital.

. . . **Dr. John F. O'Brian** of Fort Wayne was a guest speaker for the January meeting of the Gamma Beta Chapter, Delta Kappa Gamma; the Georgetown Library meeting focused on diet and nutrition.

. . . **Dr. Mary Carroll** is the recipient of the Crown Point Business and Professional Women's Club "Woman of the Year" award. She is secretary-treasurer of the Lake County Medical Society.

. . . **Dr. Larry E. Watkins** has been elected president of the medical staff at Cameron Memorial Community Hospital, Angola, succeeding **Dr. Donald G. Mason**. **Dr. Chi Pham** was elected vice-president, and **Dr. John J. Hartman**, secretary.

. . . **Dr. Robert W. Briggs** of Indianapolis, ISMA's 1980 Physician Community Service Award winner, was named a "Sagamore of the Wabash" by Governor Otis R. Bowen shortly before Dr. Bowen left office.

. . . **Dr. John A. Crawford** is the new president of the St. Vincent Hospital and Health Care Staff Center, Indianapolis. **Dr. Edward F. Steinmetz** was elected president-elect, and **Dr. I. E. Michael**, secretary-treasurer.

. . . **Dr. Basil C. Genetos** of Fort Wayne has been elected a Fellow of the American College of Cardiology. He also has been appointed as a clinical assistant professor of medicine at Indiana University School of Medicine.

. . . **Dr. S. M. Patel** of Connersville was the guest speaker at a January Kiwanis Club luncheon in Connersville; he discussed various types of fractures.

. . . **Drs. Joseph Fitzgerald, Lee Jordan, B. T. Maxam, Rebecca Wappner** and **Thomas Weber** conducted a panel discussion on liver diseases at the I.U. School of Nursing in January during a meeting of the Indiana Chapter, American Liver Association.

. . . **Dr. Donal J. Kaderabek** has been elected chief of the medical staff at Dunn Memorial Hospital, Bedford. **Dr. Lawrence E. Benham** was named chief of staff-elect, and **Dr. Benjamin J. Seligman**, secretary-treasurer.

. . . **Dr. Thomas H. Hollingsworth** of Muncie was among the leaders of a January seminar on wholistic health care conducted in Muncie.

. . . **Dr. Philip R. Myers** has been elected president of the medical staff, South Bend Memorial Hospital. **Dr. John O. Hildebrand** became vice-president, and **Dr. Dean L. Strycker**, secretary-treasurer.

. . . **Dr. Lee Smith** has been named president of the medical staff, St. Joseph Hospital, South Bend. **Dr. K. L. Cline** was elected president-elect, and **Dr. Dale Deardorff**, secretary.

. . . **Dr. John C. Richter** of LaPorte, a general surgeon, has retired from practice after 30 years.

. . . **Dr. Felipe S. Chua** of Crown Point has been elected president of the medical staff of St. Mary Medical Center in Gary and Hobart, succeeding **Dr. Raffy Hovanessian** of Merrillville.

. . . **Dr. John S. Heavrin** has been elected chief of the medical staff at the Morgan County Memorial Hospital, Martinsville. **Dr. Randall A. Lee** was elected vice chief of staff, and **Dr. William P. Winter**, secretary-treasurer.

Prosthetics — a sensitive topic

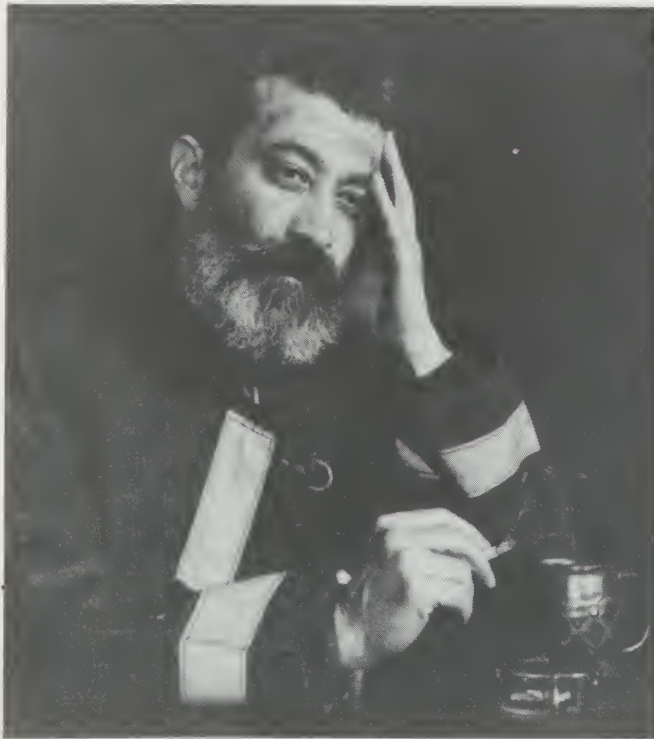


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NEWS NOTES



Bluffton Doctor Wins Kodak Award

Dr. H. Charles Smith of Bluffton has received a Kodak Centennial commemorative plate for his award-winning black-and-white portrait of a man in a fireman's coat.

The picture was on display in The Equitable Gallery in New York City last month as part of a presentation of 800 finalists in the Kodak International Newspaper Snapshot Awards.

Rosenthal Award Goes to Dr. Einhorn

Dr. Lawrence E. Einhorn, a most active and successful investigator into the therapy of cancer at Indiana University School of Medicine, will receive the Rosenthal Foundation Award at the annual meeting of the American Association of Cancer Research in Washington, D. C. in April. In 1979, Dr. Einhorn was honored by the American Cancer Society when he was awarded a grant of \$125,000 and appointed the American Cancer Society Professor of Clinical Oncology. He is especially well known for work on the chemotherapy of testicular cancer which has improved the cure rate to over 90%.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Antonio, Carlos M., Highland
Bader, Patricia I., Bluffton
Barton, Robert F., Angola
Belanger, Robert A., Fort Wayne
Benedict, Harold G., Anderson
Bergan, Joseph A., Michigan City
Bluth, Steven A., South Bend
Bojrab, Louis D., Carmel
Bolinger, Garry L., Indianapolis
Brunk, Glen A., Indianapolis
Chip, Jerold N., Merrillville
Clevinger, William G., Kokomo
Collins, Jack T., Bluffton
Conway, Louis W., Lafayette
Cure, Charles W., Columbus
Divic, Borivoj S., Valparaiso
Forry, Allen E., South Bend
Gard, Daniel A., Indianapolis
Gardner, Ian R., South Bend
Gold, Marvin E., Valparaiso
Halaby, Fouad A., Fort Wayne
Hardin, Stephen L., Martinsville
Hawk, Edgar A., Indianapolis
Healey, Robert J., Indianapolis
Hermann, Harold W., Evansville
Hicks, George W., Indianapolis
Hirsch, Theodore, Connersville

Hughes, Michael A., Bluffton
Huus, John C., Evansville
Kane, Jack L., Indianapolis
Kennedy, John W., Marion
Kight, Jerry L., Indianapolis
Kim, Young M., East Chicago
Kourany, Edgar, Mooresville
Lavallo, Frank J., Connersville
Lenthall, Ronald C., Zionsville
Lin, Yng C., Warsaw
Mangahas Violeta R., Munster
Marquinez, Adoracion A., East Chicago
Miller, James C., Greensburg
Miller, William J., Lafayette
Milos, Robert J., Merrillville
Miranda, C. R., Winchester
Mishkin, Marvin E., Elkhart
Morrison, Lewis E., Indianapolis
Musselman, Robert H., Fort Wayne
Nicholas, Thomas D., Rockville
Nourse, Myron H., Indianapolis
Pejic, Rade, Michigan City
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Ramker, Daniel T., Hammond

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Reidy, James E., Granger
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Scharoff, Jay R., Gary
Schauwecker, Cleon M., Greencastle
Schmitt, Robert J., Munster
Schoonveld, Arthur, Brook
Shadhwani, Ashokkumar, Bedford
Shetty, Dayananda M., Munster
Shulruff, Harry I., East Chicago
Silbert, Michael Z., Bloomington
Sun, Chen T., Hebron
Szanto, Philip A., Munster
Thompson, Samuel R., Fort Wayne
Trachtenberg, Lee H., Munster
Wagner, Lindley H., Lafayette
Wagner, Richard A., Newburgh
Wass, Justin L., Indianapolis
Weinberg, Benjamin A., Whiting
Wenzler, Paul J., Bloomington
Wilson, Fred M., Indianapolis
Wind, Joseph L., South Bend
Workman, Barbara E., Muncie
Young, Eusebio C., Indianapolis
Zia, Borhan M., Bedford



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A foundation for charitable, educational, and scientific purposes, organized by the ISMA as an endowment fund to support the educational mission of the Association and THE JOURNAL.

Bequests, legacies, devises, transfers or gifts to the Foundation or for its use are deductible for federal estate and gift tax purposes, in accordance with the Internal Revenue Code.

The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

*"for religious, charitable, scientific,
literary or educational purposes"*

OBITUARIES

Paul M. Flanagan, M.D.

Dr. Flanagan, 56, associate director of the medical department at Western Electric Co. in Indianapolis, died Jan. 23 at his home.

He was a 1952 graduate of Indiana University School of Medicine. He was a World War II Army veteran.

Dr. Flanagan was elected president of the Fairbanks Hospital medical staff in 1978 and served two years. He also had been medical director five years at Fairbanks Hospital. He was a member of the American Medical Society on Alcoholism and frequently presented lectures on alcoholism.

Burton J. Shapiro, M.D.

Dr. Shapiro, 54, an Indianapolis ophthalmologist, died Jan. 15 at St. Vincent Hospital, Indianapolis.

He was a 1952 graduate of Indiana University School of Medicine. A World War II Army veteran, he had practiced in Indianapolis since 1960.

Dr. Shapiro, a former chairman of the ophthalmology department at Methodist Hospital, was a member of the American Academy of Ophthalmology and Otolaryngology and of the Contact Lens Association of Ophthalmologists.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

Joseph Finneran, M.D.
Frederick D. Randall
Marlow W. Manion, M.D.
H. E. Raffensperger
Hwei-Ya Chang Loh, M.D.
John Riley
Robert M. Hollowell
John Twyman
Albert M. Donato, M.D.
James Blackmore
Goethe Link, M.D.
Mrs. Beth Bowen

J. Vernal Cassady, M.D.

Dr. Cassady, 84, died Jan. 31 at Memorial Hospital in South Bend.

He was a 1920 graduate of Indiana University School of Medicine and had practiced ophthalmology in South Bend from 1922 until three months ago.

Dr. Cassady, an ISMA Fifty Year Club member since 1970, was a member of the American Academy of Ophthalmology and Otolaryngology, the American Ophthalmological Society and the American College of Surgeons. He was certified by the American Boards of Ophthalmology and Otolaryngology.

J. Hal Doran, M.D.

Dr. Doran, 58, died Feb. 7 at St. Vincent Hospital in Indianapolis, where he formerly had been a chief of staff.

He was a 1945 graduate of Indiana University School of Medicine and served as an Army flight surgeon three years.

Dr. Doran was credited with establishing Indiana's first coronary care unit at St. Vincent Hospital. He was an associate professor of medicine at I.U. School of Medicine and was a former president of the Marion County Heart Association. He was a Fellow of the American College of Physicians and of the American College of Chest Physicians. He also was certified by the American Board of Internal Medicine.

Noel L. Neifert, M.D.

Dr. Neifert, 65, a retired Tell City physician, died Jan. 11 at Deaconess Hospital in Evansville.

He was a 1944 graduate of the University of Kansas School of Medicine. A World War II Army veteran, he began his Tell City practice in 1948 and retired last June.

Dr. Neifert, a former president of the First District Medical Society, also was a former president, secretary and delegate of the Perry County Medical Society. In 1975 he was elected president of the medical staff, Perry County Memorial Hospital. He was a member of the International College of Surgeons.

Lowell C. Smith, M.D.

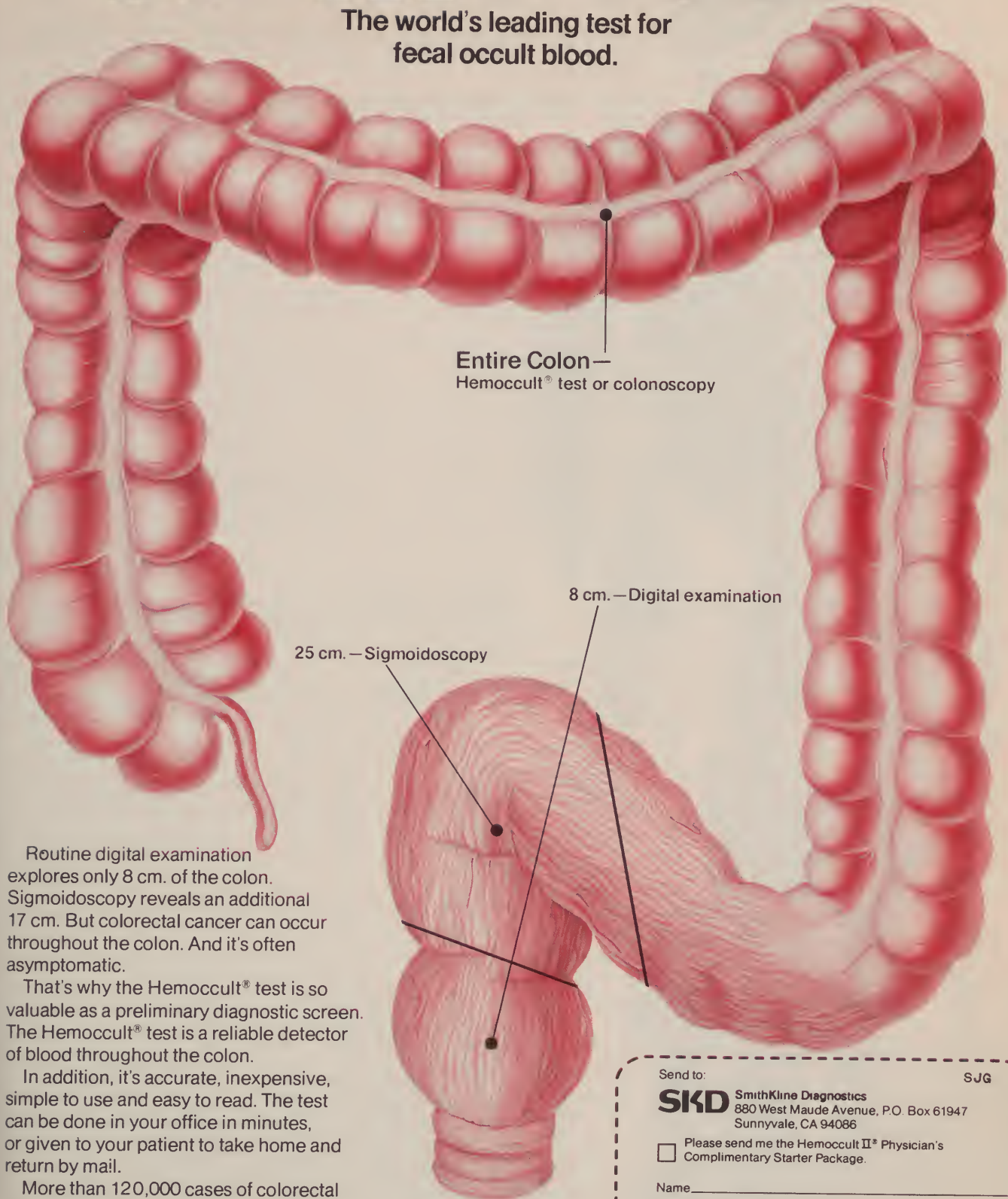
Dr. Smith, 75, a retired Lafayette physician, died Jan. 22 at St. Elizabeth Hospital, Lafayette.

He was a 1929 graduate of the Ohio State University School of Medicine. He opened his practice in Lafayette in 1932 and retired in 1975. He was a World War II veteran.

Dr. Smith was a past president of the Tippecanoe County Medical Society.

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WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants.

See WARNINGS.



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District	Term Expires
1—Jahn A. Bizal, Evansville	Oct. 1983
2—Harald M. Manifold, Blamington	Oct. 1981
3—Richard G. Huber, Bedford	Oct. 1982
4—Mark M. Bevers, Seymaur	Oct. 1983
5—Paul Siebenmargen, Terre Haute	Oct. 1981
6—Davis W. Ellis, Rushville	Oct. 1982
7—Donald C. McCallum, Indianapolis	Oct. 1983
7—Jahn G. Pantzer, Indianapolis	Oct. 1981
8—Jack M. Walker, Muncie	Oct. 1981
9—Jahn A. Knate, Lafayette (Chairman)	Oct. 1982
10—Charles D. Egnatz, Schererville	Oct. 1983
11—Herbert C. Khalouf, Marian	Oct. 1981
12—Michael O. Mellinger, LaGrange	Oct. 1982
13—Donald S. Chamberlain, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gaurieux, Evansville	Oct. 1982
2—Ralph W. Stewart, Vincennes	Oct. 1983
3—Eli Hallal, New Albany	Oct. 1983
4—William E. Caaper, Calumbus	Oct. 1982
5—Benny Ka, Terre Haute	Oct. 1982
6—Clarence G. Clarksan, Richmand	Oct. 1981
7—Jahn D. MacDaugall, Beech Grave	Oct. 1982
7—H. Marshall Trusler, Indianapolis	Oct. 1982
8—Richard L. Reedy, Yarktown	Oct. 1982
9—Max N. Haffman, Cavingtan	Oct. 1983
10—Walfred A. Nelsan, Gary	Oct. 1982
11—Edward L. Langstan, Flara	Oct. 1983
12—	Oct. 1983
13—Jahn W. Luce, Michigan City	Oct. 1982

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Terms expire December 31, 1982:

Delegates: George T. Lukemeyer, Indianapolis; Malcolm O. Scamharn, Pittsbara; Everett E. Bickers, Floyd Knabs.
Alternates: Robert M. Seibel, Nashville; Llayd L. Hill, Peru; Gilbert M. Wilhelmus, Evansville.

Terms expire December 31, 1981:

Delegates: Patrick J. V. Carcaran, Evansville; Peter R. Petrich, Attica.
Alternates: Thomas C. Tyrrell, Hammand; Marvin E. Priddy, Fart Wayne.

DISTRICT MEDICAL SOCIETY OFFICERS

District	President	Secretary	Place, Date of Meeting
1.	William R. Wells, Princeton	Steven K. Elliott, Evansville	May 21, 1981, Evansville
2.	James P. Beck, Washington	Harace Nartan, Washington	June 3, 1981, Washington
3.	Everett E. Bickers, Floyds Knabs	Charles X. McCalla, Paali	April 4-5, 1981
4.	Manuel G. Garcia, Batesville	Ali A. Daftary, Batesville	May 13, 1981
5.	James B. Jahnsan, Greencastle	Clyde Jett, Seelyville	May 27, 1981, Greencastle
6.	Douglas Marrell, Rushville	Robert J. Warren, Richmand	May 6, 1981, Richmand
7.	I. E. Michael, Indianapolis	M. O. Scamaharn, Pittsbara	June 24, 1981, Indianapolis
8.	Larry G. Cale, Yarktown	Grace C. Kammer, Muncie	June 17, 1981, Muncie
9.	Marian Kirtley, Crawfardsville	Jahn A. Knate, Lafayette	June 18, 1981, Crawfardsville
10.	Lee H. Trachtenberg, Munster	Barran M. F. Palmer, Hammand	
11.	Richard L. Glendening, Laganspart	Fred C. Paehler, Wabash	Sept. 16, 1981, Laganspart
12.	Linus J. Minick, Churubusca	Antanio B. Danesa, Fart Wayne	Sept. 17, 1981, Fart Wayne
13.	Michael J. Quinn, South Bend	G. Richard Green, South Bend	Sept. 9, 1981, South Bend

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CONTINUED FROM PAGE 125

MANE CONTROLS of Australia has developed the "Tenby" Apnoea Monitor for use in the home by parents of babies considered to be at risk of Sudden Infant Death Syndrome (SIDS). Although the cause of SIDS has not been definitely determined, the use of the monitor is recommended for babies between the ages of three months and two years born with respiratory problems, born prematurely, or with a family history of crib death. The monitor sounds an audible alarm when breathing stops for more than 12 seconds, thus alerting the family of the necessity for resuscitation.

MIDMARK CORPORATION is introducing a new Clinical Examination Table, the Model 100. It features an extra-thick padded vinyl top with a 21" paper roll concealed. There is a sturdy locking pull-out step covered with Scotch-Tred®. The spring-assisted backrest is easily adjusted to many positions. The base contains five storage drawers.

MERCK SHARP AND DOHME announces the first unit-of-use package in the muscle relaxant market. Flexeril may be dispensed in a package called Back-Pack™. It contains thirty 10-mg. tablets of Flexeril in a blister card which is perforated into 10 individual strips, each containing a day's supply of medication. Also included is an illustrated patient booklet with instructions on proper posture and lifting techniques to protect the lower back.

THE 3M COMPANY has a new stethoscope, the Littmann differential stethoscope. It has two tubes and two chestpieces which permit comparison of sounds from comparable areas of the lungs during the same breath. Controls on the scope permit analysis of sounds from both lung sources simultaneously, or either lung independently.

CLEAR SKIN is the title of a new book by Dr. Kenneth L. Flandermeyer. It outlines a treatment for acne which is 100% effective, completely safe, can be done at home and is inexpensive, and uses preparations that can be bought without a prescription. Dr. Flandermeyer is a dermatologist who devotes 60% of his practice to acne. Published by Little, Brown & Co. \$8.95 cloth—\$5.95 paper.

KEY PHARMACEUTICALS announces that a new Key product, NITRO-DUR, will be marketed in the United Kingdom, Eire, Australia, New Zealand and South Africa by Boots Pharmaceuticals of England. NITRO-DUR is a controlled release patch which, placed on the arm or chest, delivers nitroglycerin into the body for 24 hours. It is being introduced in the U.S. for treatment of cardiovascular conditions.

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In accepting advertising for publication, THE JOURNAL has exercised reasonable precaution to insure that only reputable factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services and medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days



- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice

- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache,

peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

***Pneumocystis carinii* pneumonitis:** Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

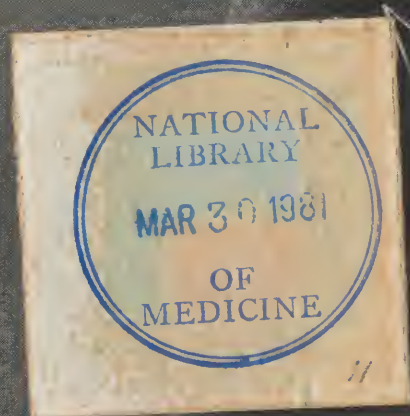
Roche Laboratories
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Please see back cover.

Her next attack of cystitis may require

the BactrimTM

3-system counterattack



Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide-spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of

Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has no significant effect on other normal, necessary intestinal flora.

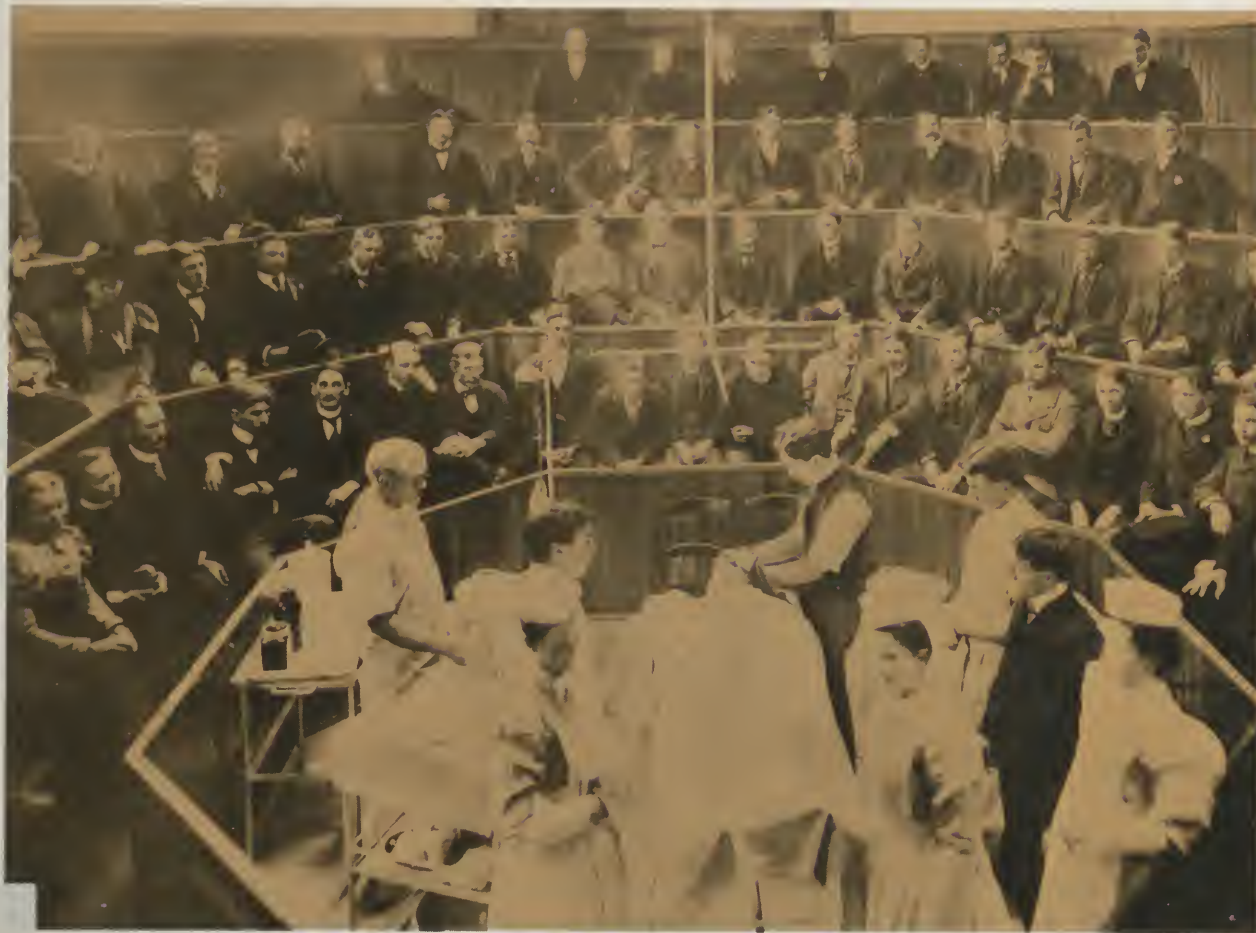
Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

April 1981 • Vol. 74 • No. 4

The JOURNAL

of the **INDIANA**
STATE MEDICAL ASSOCIATION



INDIANA SURGERY IN 1898
Precautions Are Missing—See Page 198

Feelings vs

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to decrease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgeable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) ®, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function-tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

WHAT'S NEW?

THE PHARMACRAFT Division of Pennwalt Corporation announces Desenex® Penetrating Antifungal Foam. This unique product is effective against the three major fungi that can cause athlete's foot. The foaming action increases the penetration of active ingredient.

APPLIED MEDICAL TECHNOLOGY is introducing a line of compact, flameless electrolyte analyzers called the AM 700 Series. The instruments are ideal for the clinical lab, operating room, intensive care or doctor's office. Each unit weighs only 11 lbs. and occupies less than half a square foot of table space. There are no flames, gas, pumps, tubing or dilution apparatus. Maintenance and down-time are minimal.

NUTRITIONAL ASSESSMENT INSTITUTE has developed a unique concept using a computer to establish, evaluate and monitor nutritional status in patients and healthy people via a self-assessment questionnaire that is clear, simple and structured for easy answering by the patient. The Nutritional Analysis Report, economically processed by return mail or computer terminal, is presented in the food exchange format and provides a detailed, individualized profile of a patient's current dietary status.

THE ROERIG DIVISION of Pfizer announces the marketing of Spectrobid™ (Bacampicillin Hcl.) It is a broad spectrum antibiotic which produces high peaks of blood level with fewer daily doses. It is indicated for upper and lower respiratory, urinary tract, and skin and soft tissue infections caused by susceptible Gram-positive and Gram-negative organisms. The usual dose is 400 mg. every 12 hours. There is no loss of effectiveness when taken with meals.

HEALTHCOM, INC. has nationwide sales for the T.I.M.E. medical record keeping system. The acronym stands for Techniques for Improved Management Efficiency. The various systems are geared to the specialties. Each system is problem oriented for the thorough and rapid recording and retrieval of medical information. Components include health screening and data base questionnaires, color coded medical record jackets, folios, flow records, telephone systems, progress notes and practice and patient educational materials.

CONTINUED ON PAGE 252

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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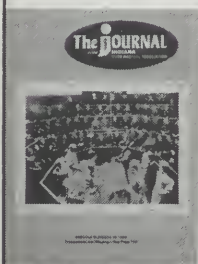
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ABOUT THE COVER

This November 1898 photograph shows the last clinic of Dr. Joseph W. Marsee, held in the amphitheater of St. Vincent Hospital in Indianapolis. Just why the photo is of special interest is explained by Dr. Charles A. Bonsett in his monthly column, "Medical Museum Notes," which appears on Page 198.

MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis

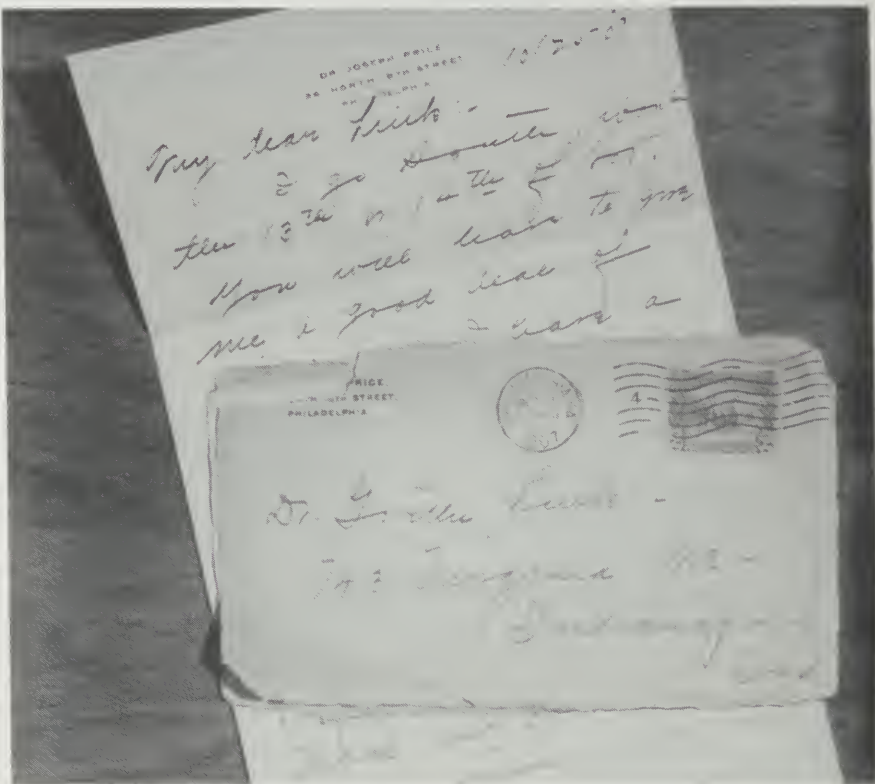
Dr. Ted Grayson and his son Tom visited the Museum several weeks ago, and among other things, found interest in a photograph on the wall in the library. The photograph, reproduced on the front cover of this issue of THE JOURNAL, prompted considerable discussion because Dr. Grayson also has a copy.

The photo shows the last clinic of Dr. Joseph W. Marsee. The place is the amphitheater of St. Vincent Hospital in Indianapolis; the date is November 1898. A note on the back of the photograph states, "(Dr.) Marsee died December 3, 1898, as a result of exposure at the fire. He was already ill (carcinoma of the stomach)." The "fire" refers to a disastrous conflagration at the Medical College of Indiana, in which one student lost his life Nov. 25, 1898.

Dr. Marsee was Dean of the School at the time of his death (at age 50), and had taught anatomy and surgery there for 24 years. He had been superintendent of City Hospital, and was chief of surgery at St. Vincent's, both being teaching hospitals associated with the Medical College. The amphitheater was designed by Dr. Marsee for surgical demonstrations to the students. (St. Vincent Hospital, incidentally, is celebrating its 100th anniversary this year. It was located in 1898 a few blocks south of Monument Circle on South Street).

The photograph is of interest because it shows the absence of masks, rubber gloves, and other precautions against sepsis, this being typical of Indiana surgery at that time.

The scene raises the question as to when and how precautionary techniques were introduced into the medical curriculum. The answer to this question is found in two newspaper articles, which concern another surgeon, also associated with St. Vincent's (and other hos-



pitals), Dr. Goethe Link.

The Indianapolis Star, on page 10 of the Nov. 2, 1907 issue, carries the following headlined announcement:

FAMOUS SURGEON COMING
Dr. Price Will Operate
Before Class of Students

"Physicians of Indianapolis have received word in advance of a visit to be made here by Dr. Joseph Price of Philadelphia, famous as a surgeon and at present one of the foremost practitioners of the East. According to a letter received a day or two ago by Dr. Goethe Link of the State Medical College, Dr. Price will visit Indianapolis about November 14 or 15 . . . He will operate before a class of students at the State College.

"Dr. Price sprang into fame several years ago in his profession with the introduction of aseptic methods in abdominal surgery . . ."

The Nov. 14, 1907 issue of the *Star* reveals on page 3 that this clinic took place on this date, and that later in the evening Dr. Price was honored at a reception by about 75 surgeons and physicians from

throughout the state. Among the out-of-town guests was Dr. William Lowe Bryan, president of Indiana University at Bloomington.

The State Medical College in Indianapolis represented I.U.'s effort at establishing a state medical school. Purdue was the principal medical school at this time.

Illustrated on this page is an envelope addressed to Dr. Goethe Link from Dr. Joseph Price dated October 13, 1907. This envelope, which was recently given to the Museum by Mrs. Link, contained a series of letters from Dr. Price from 1903 to 1909. Among these letters is the correspondence pertaining to the above session in Indianapolis. The session was arranged by Dr. Link.

This series of letters and the photograph of Dr. Marsee's last clinic recall a very interesting decade of progress in Indiana medical education.

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EDITORIALS

Want to Live Longer? Become a Symphony Conductor

Speculation has been indulged in for quite some time as to the longevity of symphony orchestras. Speculation has also extended to consideration of why, if there is such a phenomenon as conductor longevity, long life should be associated with such a small segment of the population.

There is no doubt that almost all the famous orchestras are or have been conducted by gentlemen long past the customary retirement age. Some have been quite active well into their ninth or tenth decades. This observation has prompted the supposition that the better known musical organizations acquired their leaders on the basis of the conductor's long experience. Long experience being inseparable from advancement in years the result was, therefore, great orchestras are conducted by octogenarians and up. This led to the saying that "the better the orchestra, the older the baton." A specious theory, but one that did not address the question of cause and effect.

Is there a causative relationship between long life and the life-long leadership of orchestras? Or is the phenomenon due to other factors entirely or to some happy coincidence?

The problem has now been studied by (and who else would be better qualified) the Metropolitan Life Insurance Company. A mortality study was done on symphony conductors of all ages. The finding is that such

musicians enjoy long life, to a startling degree, as compared to the experience of the general population.

The study originated in 1956, and 437 conductors were admitted to the tabulation at that time. A 20-year follow-up showed that the group, as a whole, experienced a mortality which was 62% of that in the general population—38% below that of their contemporaries.

The fourth decade reported no deaths. The fifth through the ninth decades enjoyed mortality ratios of 63, 44, 58, 77, and 66. All well below the general mortality and in the one decade by as much as 56% below.

The longevity is evidently not a consequence of musicianship. Studies in the U.S. and in the United Kingdom show that musicians and music teachers are subject to mortality which is 62% above that of the general population. In England the mortality of musicians, stage managers, actors and entertainers was 25% above that of working men.

The Metropolitan engaged in a similar mortality investigation of top corporate executives and found a much more favorable mortality ratio among the top group than among the business executives at all levels of accomplishment.

As a corollary to this observation, the Metro statisticians theorize that symphony conductors, all gifted and energetic, lead an extremely busy life and attain widespread, even worldwide, recognition as a result. To quote their report: "The exceptional longevity enjoyed by symphony conductors lends further support to the

CONTINUED ON PAGE 202

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2—Harold M. Manifold, Bloomington	Oct. 1981
3—Richard G. Huber, Bedford	Oct. 1982
4—Mork M. Bevers, Seymour	Oct. 1983
5—Paul Siebenmorgen, Terre Haute	Oct. 1981
6—Dovis W. Ellis, Rushville	Oct. 1982
7—Donald C. McCallum, Indianapolis	Oct. 1983
7—John G. Pantzer, Indianapolis	Oct. 1981
8—Jock M. Wolker, Muncie	Oct. 1981
9—John A. Knot, Lofoyette (Chairman)	Oct. 1982
10—Charles D. Egnotz, Shererville	Oct. 1983
11—Herbert C. Khalouf, Marion	Oct. 1981
12—Michael O. Mellinger, LoGrange	Oct. 1982
13—Donald S. Chomberloin, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gourieux, Evansville	Oct. 1982
2—Rolph W. Stewart, Vincennes	Oct. 1983
3—Eli Hollol, New Albany	Oct. 1983
4—William E. Cooper, Columbus	Oct. 1982
5—Benny Ko, Terre Haute	Oct. 1982
6—Don W. Hibner, Richmond	Oct. 1981
7—John D. MacDougall, Beech Grove	Oct. 1982
7—H. Marshall Trusler, Indianapolis	Oct. 1982
8—Richard L. Reedy, Yorktown	Oct. 1982
9—Max N. Hoffman, Covington	Oct. 1983
10—Walfred A. Nelson, Gory	Oct. 1982
11—Edward L. Longston, Flora	Oct. 1983
12—	Oct. 1983
13—John W. Luce, Michigan City	Oct. 1982



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EDITORIALS

Want to Live Longer? Become a Symphony Conductor

CONTINUED FROM PAGE 200

theory that work fulfillment and world-wide recognition of professional accomplishments are important determinants of health and longevity."

There is one other distinct difference between symphony conductors and musicians in general and business men in particular. That is the almost life-long, oft-repeated and diligent exercise of the shoulder girdles which is an inescapable and necessary part of the work of conducting. It is a type of exercise unique to this one profession. Could it be the basic factor contributing to the longevity of these marvelous men?

Court Upholds Premarket Testing

The FDA recently won a decision in a Federal Court in New Jersey in a case which involved and questioned the FDA rule that when a drug product for which the patent rights have expired is made by other pharmaceutical manufacturers each such manufacturer must gain FDA approval for the new manufacturer's method

of preparing and mixing the active ingredients with the inactive ingredients, even though the drug product, during its patented life, had been approved by the FDA.

The FDA maintained that when an active ingredient was prepared with different substances its bio-availability was or might be altered and, therefore, the different preparation was a "new" drug and required FDA approval.

The recent court ruling is at odds with and probably overrules a previous decision which indicated that a drug once approved could be manufactured by other manufacturers after the patent expired and did not require new approval for each new manufacturer.

Because of the early ruling, the present case, when tried, was allowed practically unlimited privilege to admission of evidence. Testimony ran for over 11 days on each of the eight drugs concerned. Two thousand pages of transcript were produced. There also were 2,000 pages of affidavits, more than 400 pages of briefings and 1,000 pages of other posthearing submissions. The decision ran to 130 pages and was facetiously referred to as "All You Ever Wanted to Know About Bio-availability."

Judge Lacey, in the present case, stated that he was sure that the previous ruling would have agreed with his (Lacey's) ruling if the previous court had had such a wealth of information.

The case brings to mind an event of several years ago in which a generic form of digitoxin was found to contain by chemical analysis a standard dose but on bio-availability tests was found to deliver only one-seventh of the standard dose to the blood stream.

There can be no doubt that proper approval by FDA for every product of every pharmaceutical manufacturer is an absolute must if we are to be assured that all drugs are effective and safe. Manufacturing methods vary and such variances often alter the absorption and bioavailability.

'Gentler' Aspirin, Ulcer Drugs

Research on aspirin-related compounds by Upjohn laboratories shows that salicylic acid can prevent aspirin's damaging effects on cells of the GI tract. Salicylic acid also demonstrated improved resistance of rat's stomach tissue to effects of pure alcohol and strong acid. It was 10 times more effective given orally than by injection. The same protective action has been demonstrated with several of the prostaglandins. The exact mechanism of cytoprotection by PGs or by salicylic acid is not known.

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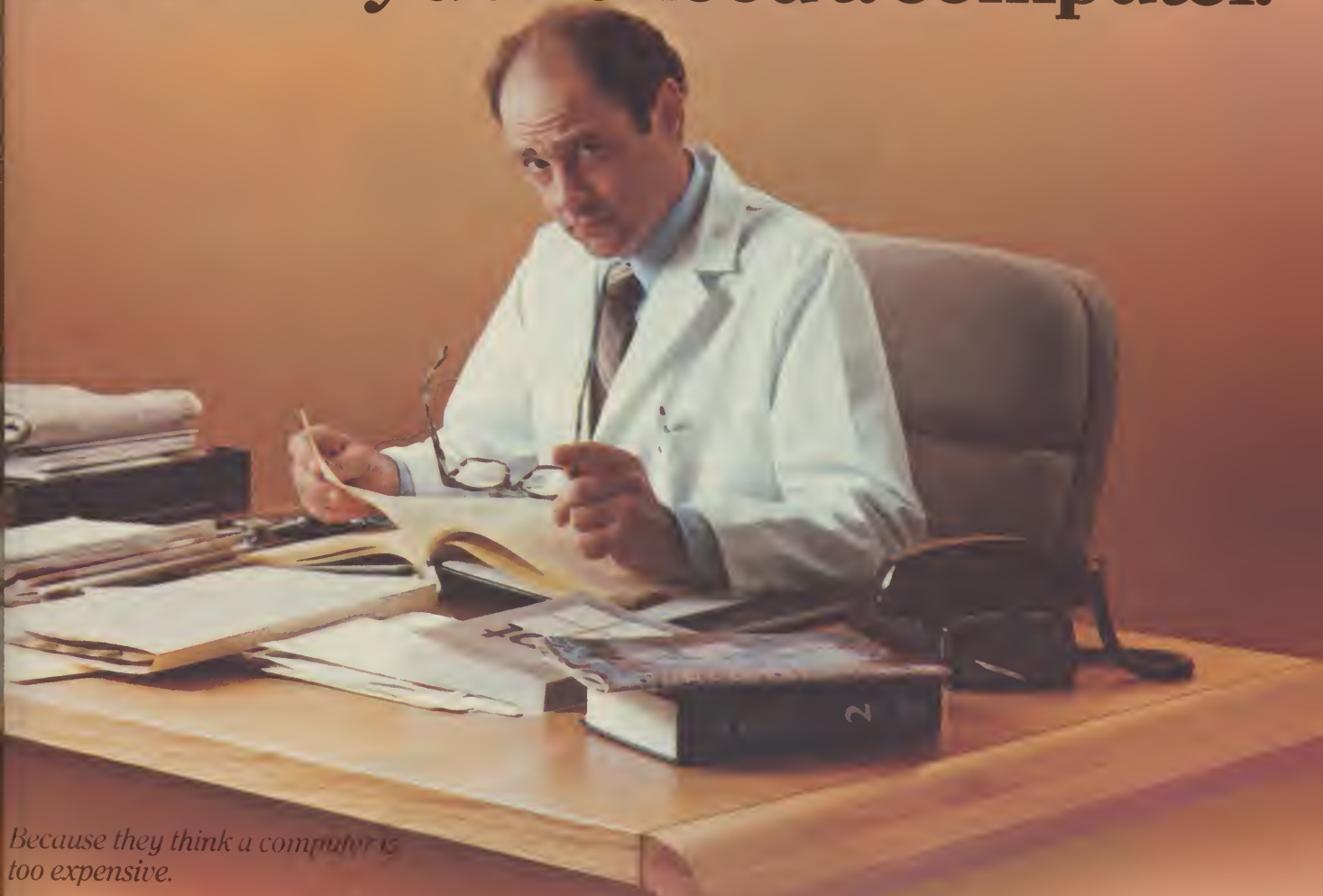
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GMENAC REACTIONS

Page 206

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PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section). Complete literature available on request from Professional Services Dept. PML.



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The Making and Taking of Doctors

Guest Editorial

L. A. ARATA, M.D.
Shelbyville

DOCTORS JUST HAPPEN to be some of my favorite people; I am happy to see their number increase; I find the crops of new recruits to be delightful to know and to work with; so, I got to wondering just why doctors are such a fine bunch of people to be associated with. Obviously, my observations do not apply 100% to each person because all are individuals; probably that is part of their charm.

Someone more Freudian oriented than I might try to trace the beginnings of doctors to nipple-weaning or to potty training; I say it starts much later in life—with the college enrollment of the immature pimply-faced adolescent high-school graduate. Such person attends college physically, but is part of a sub-culture known as Pre-Med. He tends to avoid much of the broadening socio-cultural activity of the university as he devotes himself to the all-important activity of getting grades. He self-imposes a tight cloistering among his books.

Four years later, he finds himself in the little world of Medical School. Medical School is still a part of the University, but it is cut off from that 99+% of the people who make up the world. It is a little island unto itself, populated with people of superior intelligence and great motivation.

Another four years pass, and our new doctor moves into the hospital setting for residency training. His world remains very circumscribed; his associations are still limited to his peers who are of similar background. Dedication, study, and hard work still dominate the picture.

Finally, 10 or 12 years after our immature adolescent first entered college, he is done with his formal training. He must begin to function in a world where few people are as intelligent as those with whom his life has been so closely bound for nearly half of his remembered years. He finds that most people do not think as he thinks; most people are not as motivated to work as he is; most people do not really give a damn about striving for excellence in health, work, or play. He is about as alone in the world of ordinary people as is a newly ordained "Barefoot Friar of the Primitive Rule." He has been as tightly cloistered through the years as the Barefoot Friar.

Certainly the cloistered world he has known for so long, peopled with honest, hard-working associates whom he could trust, people who said what they meant and meant what they said, well prepares him to practice his healing arts, but it ill-prepares him to defend himself from the various slick-talking salesmen anxious to separate him from large parts of his above-average income. This training he has had so much of, so good for patients, leaves him a sitting duck for Smooth Talking Sam selling Blue Sky Unlimited, and for Tax Shelter Tom's pie-in-the-sky talk of riches. This training that the doctor has not had is probably the reason that doctors head the sucker lists of all swindlers. Usually, by the time the doctor has lost two fortunes, he completes his economic education.

Anyhow, I like doctors; they are my kind of people: intelligent, dedicated, hard working, honest people who say what they mean and mean what they say. The new crop that I see are as fine a bunch as the older crops; and the new ones, for the most part, have repeated our type of training and repeat our mistakes.

NEXT MONTH: The Journal will publish the Constitution and Bylaws of the Indiana State Medical Association, incorporating amendments of the 1980 House of Delegates and the new AMA Principles of Medical Ethics.



Dean Beering

HEALTH MANPOWER:

Reactions to the GMENAC Report

STEVEN C. BEERING, M.D.
Dean
Indiana University
School of Medicine

ON SEPT. 30, 1980 the Graduate Medical Education National Advisory Committee concluded a four-year study with a report to the Secretary of the Department of Health and Human Services. It had been the charge to the Committee to study:

- "What number of physicians is required to meet the health care needs of the nation?"
- "What is the most appropriate specialty distribution of these physicians?"
- "How can a more favorable geographic distribution of physicians be achieved?"
- "What are the appropriate ways to finance the graduate medical education of physicians?"
- "What strategies can achieve the recommendations formulated by the Committee?"

In accomplishing these tasks, the Committee drew on a large number of consultants and employed a

modified Delphi opinion survey to make projections for the future. The Committee did not study the specialties of neurology, pathology, radiology, nuclear medicine, anesthesiology and physical medicine and rehabilitation. The Committee did not achieve a resolution of the question on geographic distribution of physicians. Finally, the Committee did not study the role of non-physician health care providers and their reciprocal relationship to the requirements for physician manpower.

The principal finding of the Committee was a surplus of 70,000 physicians by the year 1990 and an excess of 145,000 physicians by the year 2000. The Committee also identified psychiatry and emergency medicine as shortage specialties and the remaining medical and surgical specialties as being near balance or in a surplus.

The Committee concluded its work with the elaboration of 107 recommendations. The key recommendation states that medical schools should reduce their entering class size by 1984 by 17% relative to the 1980-81 entering class. The report also urges a dramatic reduction in the numbers of foreign

Members of the Indiana Medical Education Board met recently to discuss the conclusions of the Graduate Medical Education National Advisory Committee (GMENAC). This report, prepared by Dean Beering, chairman of the Indiana Medical Education Board, reflects the Board's consensus concerning the GMENAC report. Board members include Jack H. Hall, M.D., secretary, Robert Acher, M.D., Ronald Blankenbaker, M.D., Wilson Dalton, M.D., Robert Thayer and David Trew.

medical graduates entering the United States yearly and an encouragement of medical school graduates to enter the specialties of emergency medicine, psychiatry, family medicine, general pediatrics and general internal medicine. Another major recommendation was that medical service revenues should continue to provide the major source of funds to support graduate medical education. Finally, the group recommended that the GMENAC be established as a statutory body to continue to advise the Federal Government on matters concerned with graduate medical education.

The Indiana Medical Education Board has been monitoring the entire spectrum of graduate medical education in Indiana for the past 12 years. The population of Indiana comprises approximately 2.4% of the national population and our medical school enrollment comprises approximately 2% of the total number of medical students in the country. During the past decade the evolution of the Indiana Statewide Medical Education Programs has allowed for an appropriate increase in physician numbers and enhanced their rational distribution by geography and specialty.

We question whether the opinions of the GMENAC are universally applicable. In particular, we wonder whether their perception of a physician excess is supportable in view of a series of countervailing forces. It would seem to us that the number of patients in the age group over 65, which will double during the next two decades, will call for more rather than less attention by physicians. Even now this group of patients consults the physician four times as frequently as their younger counterparts and occupies 40% of the beds of the nation's hospitals. It is also this group of patients who have multiple and complex disorders.

The medical work force is changing. Currently, approximately 11% of all practicing physicians are women whereas the medical student population contains nearly 30% women. It is well known that female physicians spend less time in patient contact than their male counterparts. Again, this characteristic of the work force needs to be factored into the projections.

Currently, 22% of all medical practitioners are foreign medical graduates. Recently, the immigration laws were changed with a resultant dramatic decrease in foreign physicians entering now and in the future. This reduction alone will counterbalance at least half of the GMENAC predicted surplus.

For a variety of reasons, physicians are beginning to limit their practices, and approximately 5% of the physician work force are known to be retired. If physicians continue the present trend of withdrawing from active practice at the usual retirement age, another 25,000 physicians will become inactive during the next several years. It is also anticipated that physicians will limit the number of hours in their typical work-week from the present average of 56 hours to something more closely approximating the usual 40-hour week.

We must recognize that there is a great variability of physician supply by state. For example, New York has 240 physicians per 100,000 while in Indiana it is currently 132 per 100,000 (the national average was 204 per 100,000 in 1979). We believe, therefore, that national policies and also our state policies must be continually monitored and adjusted to reflect the migratory patterns of physicians.

We also believe that programs in graduate medical education should be assessed on the basis of quality rather than arbitrary national standards. We must remember that the lead time for effecting a change in

the medical education continuum is at least 10 years; therefore, medical school enrollment should be adjusted only after careful review of the quantity and quality of the applicant pool as contrasted with the resources available to provide medical education of high quality in each school.

In conclusion, we would like to quote from this year's Progress Report of the Indiana Statewide Medical Education System which demonstrates the following important gains:

- "First, the physician population in Indiana has increased dramatically since the beginning of the program. In 1967, there were only 4,800 physicians practicing in the state, approximately 94 for every 100,000 in population. Today, the number of physicians in the state is 7,260, a 51% increase. The ratio of practicing physicians to Indiana residents has improved to 132 per 100,000 population.

- "Second, an increasing number of the graduating physicians are entering Family Medicine. In 1974, there were seven Family Medicine Residency programs in the state, with 35 physicians enrolled. Today, six years after supplemental legislation was approved, there are 13 Family Medicine programs with 204 young doctors enrolled.

- "Third, the State of Indiana has been retaining two-thirds of the School of Medicine's graduates for several years. This reverses the trend of the mid-1960s, when two-thirds of the graduates were moving elsewhere . . ."

The members of the Medical Education Board have, therefore, unanimously concluded that medical education programs in Indiana should continue at their present levels with the hope that we could expand our efforts in graduate medical education in the primary care specialties.

TAX-EXEMPT BONDS: Who, When and How Much

MAX D. KIME, JR.
Trust Officer

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THE MEDICAL PRACTICE income physicians earn cannot be taxed by the IRS at a rate exceeding 50%, but investment income—earnings from dividends and interest—can be taxed at up to 70%.

As a result, the physician/investor who makes a new investment of \$10,000 at a 12% current yield gets to keep between \$360 and \$600 of the annual \$1,200 income from that investment. Before long his C.P.A. or tax attorney is advising him to consider municipal bonds, because the interest is entirely exempt from federal income taxes even though investment decisions should never be made solely on the basis of tax considerations.

Mr. Kime is a Phi Beta Kappa graduate of Purdue University and has an M.S. in Industrial Relations from its Krannert School of Management. He has been a labor mediator, stockbroker and university lecturer.

Municipal bonds are debt obligations issued by non-federal government units such as states, cities, school districts, housing and sewer authorities, etc. (not just municipalities!) on which the federal government may *not* levy federal income tax. Every municipal bond delivered to a purchaser must be accompanied by a written legal opinion to this effect. They are issued in a broad range of maturities and, for reasons to be discussed shortly, are typically priced to yield 30-35% less than a corporate bond of similar quality and maturity.

Less than 2% of all municipal bonds issued in this country in the 20th century have defaulted on principal. Corporate bonds may not boast of a record anywhere close to this. Once purchased, they may be easily sold in the over-the-counter market through the investment community.

The case for owning municipal bonds is most often made by comparing the *after tax* yield on a municipal bond with that of a corporate or U.S. government bond, both of which are taxable by the federal government. For the week ending Jan. 23, 1981, long-term corporate bonds with A ratings were priced to yield about 14%, while similar quality municipal bonds were at a 9.7% level.

Simple arithmetic shows that a physician/investor in a 50% federal income tax bracket would keep only 7% after taxes on the corporate bond, much less than the 9.7% he

would get after taxes on the tax-exempt municipal bond. Considering their demonstrated safety, liquidity and income tax advantages, shouldn't all high tax bracket individuals consider converting most of their monetary assets to municipal bonds?

Not necessarily. Obviously the higher your tax bracket, the better the case for this completely tax-oriented approach. But there are still problems. The interest received on municipals is fixed, meaning that should you buy a 20-year bond for \$10,000 with a 9% coupon, the annual tax-free income will remain at \$900 and your principal will be the same \$10,000 after 20 years. This is fine if prices remain stable, and positively delightful if prices decline due to deflation, such as we had in the 30s.

But what if inflation continues? The fact is that the purchasing power of both the interest and the principal will decline, while one's personal expenses, even in retirement, will rise, possibly forcing a decline in living standards. If the current 12% inflation rate continues, the purchasing power of the \$900 will drop to \$450 in six years and \$225 in 12 years, in the terms of today's prices.

A prudent investor tries to protect himself from both 1970s style inflation and 1930s style deflation. (Deflation is a situation where the purchasing power of the dollar is rising.) Bonds are simply not a hedge against inflation, but this

does not rule out their use under today's conditions.

First of all, a *deflationary* period as dismal and protracted as the *inflationary* 60s and 70s is possible; consequently, the smart physician/investor should probably keep a portion of his assets in municipal bonds, a minimum of perhaps 25-30% of his monetary assets.

Second, as any investor gets older, he becomes more interested in current income and safety and less so in increasing the value of his principal. Consequently, he is likely to gradually move toward more bonds and away from a high ratio of common stocks, the traditional instrument for those seeking appreciation of both income and principal. He will do this because of the higher current income generally available in bonds as opposed to

common stock. If the investor's tax bracket is greater than 35% and likely to remain there until his death, the best high current income investment normally will be municipal bonds.

In summary then, a conservative high tax bracket investor should have a solid core of municipal bonds in his portfolio and should gradually increase his exposure to tax-exempt bonds as he gets older. Prior to retirement, there is a danger, though, in accumulating too many bonds too early in life in an inflationary economy and a corresponding danger in owning too few during a deflationary/depression economy. Advice on the correct percentage to own at any time should come from an *objective* third party.

Such counselor will recommend

that the municipal bond portion of your portfolio go into individually purchased bonds, a tax-exempt bond fund through a mutual fund company or a common trust fund with an experienced bank trust department. The bank common trust funds and some mutual funds have the advantage of being professionally *managed* funds, thus enabling them to achieve some income growth and greater preservation of capital through an interest rate cycle.

The above mentioned alternatives should not be confused with unit investment trusts (sold by brokerage firms) which are essentially passive, unmanaged investments. Fees, sales charges and commissions related to these alternatives vary substantially and should be carefully investigated.



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The I.U. School of Medicine Library: A Facility That Offers Its Services Statewide

JOE G. LEHMAN, M.A.
Indianapolis

INFORMATION ABOUT electroencephalograms of tigers, children drowning in buckets, laetrile, cyanide poisoning, or placing the time of death in a double homicide are among the hundreds of thousands of requests that have been filled by the library of the Indiana University School of Medicine.

The library exists primarily as a resource to support teaching and research for the I.U. Medical Center, Miss Mary Jane Laatz, director, points out. However, throughout the years it has extended its many services statewide. It provides students and faculties of the school's seven Centers for Medical Education the same services offered students and faculty at the Medical Center.

Teletype Network. Physicians and other health professionals in

more than 200 Indiana communities can send queries directly to the library via the statewide library teletype network. An average of 15,000 books and photocopies of journal articles are sent each year to these patrons away from the Medical Center. Materials are mailed within 24 hours after a request is received.

Computer Searches. The School of Medicine library has access to 165 data bases. With these computer services, between 300 and 400 computer searches are processed each month for bibliographies on wide-ranging subjects and provided to Medical Center students and faculty and health professionals throughout the state.*

National Access. As one of the 13 resource libraries in the six-state region designated as the Midwest Health Science Library Network, the School of Medicine also has access to the collections of the best medical libraries in the Midwest. Since this region is one of a network covering the entire country established by the National Library of Medicine, ultimately the medical profession in Indiana has direct access to the collections of the major medical libraries in the United States.

* Indiana physicians and practicing health professionals desiring computer searches should contact the search analyst at 317-264-2272. Those desiring copies of the articles cited in these print-outs should contact their local hospital librarian, who will submit the request to the Indiana University School of Medicine extension librarian.

Journal holdings of 17 health science libraries in Marion County are included in a computerized compilation of journals developed by the library as a service to Hoosiers. As the center of medical information in the state, the I.U. library eventually hopes to include the journal holdings of all hospital and other health science libraries in Indiana, thus creating an Indiana list of medical journals for the convenience of physicians and health science libraries in the state.

Catalog. With strained budgets, libraries today must cooperate. To avoid the purchase of duplicate materials, a cooperative acquisition program was developed by the I.U. library with the libraries of Wishard Memorial Hospital, Larue D. Carter Memorial Hospital, the School of Dentistry, and the Veterans Administration Medical Center. A catalog of all Medical Center libraries except the Veterans Administration is maintained by the School of Medicine library so patrons of these institutions can tell at one location what is available campus-wide. Miss Laatz reports that an analysis of this catalog shows that 85% of the listings are not duplicated.

The library is the central resource upon which every school must build. While the school with the best library is not necessarily the best school, a school with a poor library has very little chance of placing among the best.

Importance of the School of Medicine library today, not only to the school but to the entire state,

Mr. Lehman is Editor, Health Professions, Indiana University-Purdue University News Bureau, Indianapolis, where he has been employed since 1962.

was emphasized by Dr. Robert B. Forney, state toxicologist and director of toxicology for I.U. Dr. Forney pointed out that his laboratory could not perform all the experimental work necessary to keep up with new drugs and changing patterns of drug use and abuse. Neither can his staff survey all the literature in the field from all over the world. And if he needs information on a specific drug or symptom or effect, he needs it quickly.

"If I have a question," he said, "the reference librarian can research it and bring me a computer

printout of all the available literature within a few minutes. We are using methods devised by laboratories in Japan, Italy, France and other places in the world besides England and the United States, and comparing our results with theirs. We are constantly updating our methods and acquiring knowledge about new drug problems that we have not yet encountered."

Calls for help come not only from practicing physicians and forensic pathologists, but also from judges, lawyers and insurance com-

panies. Environmentalists are increasingly using the library's services. Rehabilitation centers, therapy programs, mental institutions, nursing homes, drug companies, and manufacturers of prostheses are all served.

Some urgent calls are related to patient care. Some come from physical accidents, such as the effect on the environment of a substance leaking from an overturned truck, or industrial accidents where workers have been exposed to some toxic material.

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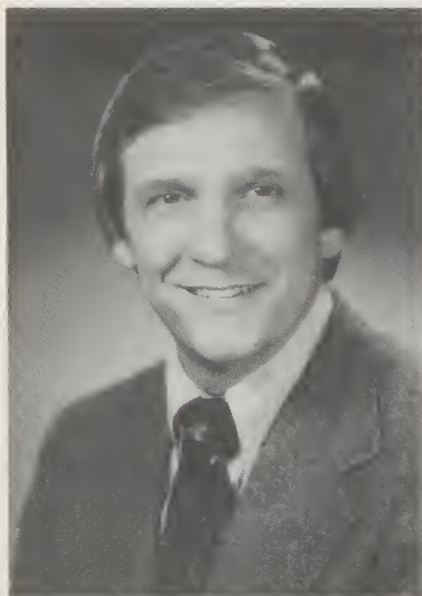
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Dr. Allen

LETTER FROM THE SPEAKER

RESOLVED: That Physicians Be Heard

effective in this effort we must strengthen our base of input in the decision-making process!

It is to this need for timely input that I direct your attention. Your State Medical Association invites—and indeed depends upon—the collective voice of its members and constituent county societies in this task of developing the policies and initiatives that will shape the face of medicine for physicians and patients in Indiana. The communicative process, by which organized medicine can impact upon decision-making at various levels of government, begins with each physician and is ultimately summarized by the policies expressed through our respective medical societies.

The Indiana State Medical Association is a compact organization designed to reflect the attitudes of its component county and district societies so that we derive the strength of our organizational policies and professional standards from many, rather than a few. The mechanisms immediately available to all physicians who wish to articulate a point-of-view include speaking directly with one's own legislator or congressional representative. Support for a point-of-view can be further advanced by the sponsorship of one's own county, district, and state medical group. Herein, I would point out the advantages of

incorporating the services of your district trustee, as this may allow for immediate consideration of a point-of-concern by your State Medical Association. The Indiana State Medical Association staff is constantly available to assist each individual member and to coordinate the activities of each county and district society. Remember, together we can insure that physicians will be heard on the issues of health-care.

The ultimate consideration of formal proposals presented as RESOLUTIONS is indeed the official business of our Annual Meeting and should be the ultimate arena for all issues that deserve the deliberation of a reference committee and the House of Delegates. So important is the exercise of this privilege that I urge each individual member, county society, and district, as well as all the commissions and committees of our State Association, to begin well in advance the preparation of those resolutions to be presented to the State Convention. Your Speaker's office stands open to assist our membership in realizing a full participation in the decision-making of our State Association and encourages each member to be a part of the "voice-of-medicine."

Lawrence E. Allen, M.D.
Speaker, House of Delegates

ONE YEAR AGO, I forwarded a letter to each county society president in which I addressed the subject, "Opportunities for Organized Medicine in the 1980s." I emphasized the rather unique possibility of reversing some of the federal regulatory burden imposed upon medicine during the previous decade. This opinion reflected the speculations of economic and political advisors who felt the general tenor of the American political scene was soon to undergo significant change.

The reasons for such change were multiple—not the least of which had to do with the disenchantment that most citizens felt for the increasing control that agencies of the government had gained over each of our lives. The unprecedented expression of this discontent was evident in our recent elections. The climate for change is now all around us and *physicians* have a responsibility to the American people to see to it that such change does not weaken the health-care system of this nation. To be

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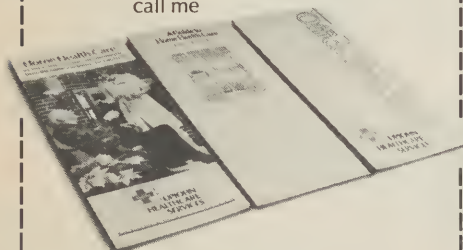
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As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designed.

To obtain Category 1 credit for this month's article, complete the quiz on Page 235.



Nonthoracotomy Diagnostic Techniques

EVALUATION of patients with pleural effusions, chronic infiltrates, coin lesions, or lung masses often includes tissue biopsy to establish a diagnosis. If sputa samples for cytology, smear and culture do not provide the etiology, several nonthoracotomy techniques are available. Three techniques, pleural biopsy, fiberoptic bronchoscopy and transthoracic needle aspiration, are performed frequently by members of the Pulmonary Medicine Section at Indiana University Hospital, often in cooperation with members of the Department of Radiology.

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MITCHELL L. RHODES, M.D.
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Pleural Biopsy

Patients with exudative pleural effusions of uncertain etiology should be considered for pleural biopsy. If the effusion is due to direct pleural involvement by malignancy or granulomatous disease, pleural biopsy can significantly increase the chance of diagnosis over thoracentesis alone. If one of these conditions is strongly suspected clinically, pleural biopsy can be combined with the initial diagnostic thoracentesis.

In the past, the classification of pleural effusions as an exudate or transudate had been based on protein content or specific gravity alone. Newer criteria involving the

ratio of pleural fluid protein to serum protein, pleural lactic dehydrogenase (LDH) to serum LDH and the absolute value of LDH allow a more accurate differentiation (see Table 1). Effusions that do not meet these criteria are transudates and can be caused by heart failure, nephrotic syndrome, myxedema, and cirrhosis, which do not affect the pleura directly but alter the vascular and osmotic pressures that control the movement of fluid into and out of the pleural space. Pleural biopsy is not helpful in these situations. If the effusion shows the criteria outlined in Table 1 and cytologies, smears and cultures do not yield a specific diagnosis, then pleural biopsy is indicated. Other diagnostic aids obtainable from thoracentesis have been recently reviewed (see Bibliography).

Needle biopsies of the pleura were first reported about 25 years

ago and have been in common use for the past 20 years. With adequate local anesthetic and proper technique, the procedure should not be any more uncomfortable to the patient or present increased risk over a thoracentesis alone. With small or loculated pleural effusions, the use of ultrasound can accurately localize the fluid and increase diagnostic yield. Pleural tissue should be obtained more than 90% of the time. Multiple biopsies can be taken from one or two sites. Positive histology can be confirmed in 40 to 50% of patients with malignant pleural effusion. A tuberculous pleurisy can be accurately diagnosed in about 75% of patients by combining histologic evaluation of the pleura for granuloma and organisms plus culture of one or more pieces of pleura. Potential complications of pleural biopsy are hemothorax or pneumothorax.

Fiberoptic Bronchoscopy

The flexible fiberoptic bronchoscope was developed in Japan in the late 1960s and has been in use in this country since the early 1970s. The standard diagnostic scope has a 4 to 6 millimeter external diameter and contains a 2 millimeter biopsy and suction channel. A variety of brushes and forceps can be introduced through this channel, and saline can be lavaged and aspirated through the channel for washings. The rigid open tube bronchoscope, which has been largely, though not completely, replaced diagnostically by the flexible scope, can visualize only the main stem and lobar bronchi and the openings to some segmental bronchi. The end of the fiberoptic scope can be flexed at least 90 degrees and easily introduced into upper lobe bronchi. The small size of the scope allows it to enter all segmental and often several generations of subsegmental bronchi. We perform the procedure either in our pulmonary

diagnostic suite or in one of the Special Procedures rooms in Radiology under fluoroscopic control. The patients are awake and the scope is introduced under topical lidocaine anesthesia. The instrument can be introduced either through the nose or mouth, though our common routine is to pass an

TABLE 1	
EXUDATES VS. TRANSUDATES	
Characteristics of Exudates	
1. Pleural fluid protein/serum protein	>0.5
2. Pleural fluid lactic dehydrogenase/serum lactic dehydrogenase	>0.6
3. Pleural fluid LDH	>200 IU

oral endotracheal tube over the scope so the scope can be removed and re-introduced without discomfort to the patient and control of the airways is facilitated. We have fluoroscopy available whenever we anticipate taking biopsies of lung parenchyma or trying to sample peripheral masses or nodules.

Approximately 50% of lung tumors can be seen centrally through the fiberoptic bronchoscope. With central neoplastic lesions, we obtain a better than 90% diagnostic yield with no significant complications. By using fluoroscopy routinely when diagnosing peripheral lesions, we have been able to obtain better than a 70% diagnostic yield of malignancy in more than 600 procedures with no mortality and no major morbidity.

Our experience indicates that blind sampling by lavaging and/or brushing what is believed to be the appropriate segmental bronchi, *without fluoroscopy*, leads to a significantly lower diagnostic yield and increased risk of causing a pneumothorax or hemorrhage. Tumors metastatic to the lung also can be diagnosed by biopsy through the fiberoptic bronchoscope under fluoroscopic control. Tumors arising in the genito-urinary tract often

metastasize to airways and can occasionally be biopsied under direct visualization. Most metastatic tumors of the lung metastasize to the parenchyma. With primary and metastatic lesions to the lung, we sample most with biopsy, brushing and washing. The techniques appear to be complimentary and the multiple samplings increase our diagnostic yield. Washings alone without brushing and/or biopsy rarely have been helpful in peripheral malignancies. With lesions less than 2 centimeters in diameter located in the outer third of the lung field, diagnostic yield for transbronchial biopsy and brushing drops off.

In addition to establishing a specific cell type of lung tumors, fiberoptic bronchoscopy is helpful in pre-operative staging. We recommend it be considered in all patients prior to thoracotomy even if positive sputum cytologies have established the cell type. Bilateral tumors have been identified in patients who had only unilateral involvement apparent on x-ray. In other patients with positive sputum cytologies and chest x-ray abnormalities presumed to be the primary tumor, the tumor has been localized by bronchoscopy to other sites and the x-ray abnormality shown to be inflammatory in nature. Blind biopsy of normal appearing main carina in patients with central bronchogenic carcinoma has uncovered microscopic neoplastic invasion in as many as 10% of patients. These bronchoscopic findings would markedly alter the surgical approach to the patient. The finding of small cell carcinoma (oat cell) by bronchoscopic brush and biopsy might alter the therapeutic approach from surgery to chemotherapy.

In adults with sputum cytology positive for tumor and/or hemoptysis but normal chest x-ray, the fiberoptic bronchoscope is a par-

ticularly useful diagnostic tool. We found occult neoplasm in the airways or nasopharynx of 16% of adults presenting with hemoptysis and normal x-rays.

In patients with chronic infiltrates or diffuse interstitial disease, transbronchial biopsy through the fiberoptic bronchoscope may provide a specific diagnosis and eliminate the need for open lung biopsy. In patients with inflammatory interstitial disease, it has been possible to make a specific diagnosis in 64% with the transbronchial biopsy. In immunosuppressed patients with pneumonia, a specific etiology was made in 62% with the transbronchial biopsy. These procedures were all performed under fluoroscopic control. Complications included a 4% incidence of pneumothorax and a 2% incidence of hemoptysis greater than 100 cubic centimeters. No patients required transfusions or surgical intervention to control their bleeding. There were no fatalities. Multiple biopsies were generally taken but the biopsies were usually confined to one lung since pneumothorax remained a risk even when the biopsy was done under fluoroscopic control.

A new brush inside a catheter with a sealed tip has been introduced for obtaining culture material from the lower airways without contamination from the nasal and oral pharynx. The brush is passed through the biopsy channel of the fiberoptic bronchoscope into the area of infiltrate as confirmed under fluoroscopy. The soluble plug at the end of the catheter is then pushed into the airway and the area of infection brushed. Samples for aerobic and anaerobic bacteria, mycobacterial and fungal cultures can be obtained in this fashion.

In addition to its extremely useful role as a diagnostic tool, fiberoptic bronchoscope is a valuable therapeutic aid. Removal of mucus

plugs under direct visualization has led to re-expansion of atelectatic lobes and lungs in many patients on ventilators. Expandable claws and baskets have been developed to allow foreign bodies to be removed from the airways via the fiberoptic bronchoscope. We originally developed these for use in adults where foreign bodies were beyond the reach of the rigid bronchoscope. We have "extracted" teeth, broncholiths and aspirated pills from the airways of patients who were not candidates for rigid bronchoscopy because of head or neck trauma or being on a mechanical ventilator.

Not all patients are appropriate candidates for fiberoptic bronchoscopy as it is performed at Indiana University Hospital. The procedure is done under local anesthesia in awake patients. Lack of patient cooperation is a contraindication. Another contraindication is severe hypoxemia that cannot be readily corrected with supplemental oxygen. Patients with acute hypercapnea can have their condition aggravated by the flexible fiberoptic bronchoscope unless they are on a mechanical ventilator. The flexible scope is solid, unlike the hollow rigid bronchoscope and increases airway resistance and can cause a further rise in arterial PCO₂. For this reason patients with marked narrowing of the trachea due to masses or stenosis might better be examined by the rigid scope. We monitor all our patients for arrhythmias and myocardial ischemia during the procedure but recent myocardial infarction is a contraindication. Bleeding diatheses and active tuberculosis are additional contraindications. Patients with bronchospastic disease, such as asthma, are at increased risk and we perform fiberoptic bronchoscopy on these patients while they receive continuous I.V. aminophylline drip. Because of the limited suction capabilities of the fiberoptic bron-

choscope, patients with massive hemoptysis are best examined with the open rigid scope.

The complication rate for fiberoptic bronchoscopy nationally is very low but the potential for bleeding, pneumothorax, reaction to anesthetic agents, and blood gas deterioration with associated arrhythmias are all potential complications. The procedure should be carried out only by well trained physicians with adequate support personnel and facilities to handle emergencies immediately.

Needle Aspiration

Our diagnostic yield for nodules less than 2 centimeters in the periphery of the lung is approximately 40% with transbronchial biopsy via the fiberoptic bronchoscope under fluoroscopy. Others have reported a zero diagnostic yield with this type of lesion. An alternative approach to diagnosing small peripheral nodules, when fiberoptic bronchoscopy has failed or as a primary technique, is needle aspiration. This technique is being used extensively in Scandinavia and in recent years has gained acceptance in the United States.

A small gauge spinal needle or specially designed thin walled 23 or 25 gauge aspiration needle can be introduced into lung nodules percutaneously under fluoroscopic control after appropriate local anesthesia. Successful penetration of the nodule is confirmed by seeing it move on the fluoroscope and by feeling a sense of resistance at the end of the aspiration needle. Biplane fluoroscopy gives added confidence to correct positioning. Suction is applied via an attached syringe and a few drops of cellular material are aspirated into the needle.

This material is immediately expressed onto a glass slide and fixed to prevent drying and deterioration of the specimen. We generally have

cytotechnologists in the procedure room to receive and fix the specimens. Since only small collections of cells are obtained by the technique, successful interpretation requires the availability of an interested and well trained cytopathologist. With appropriate acquisition, preparation and interpretation of the material, better than 90% diagnostic yield with even small malignant lesions has been reported in many centers.

Needle aspiration also can be used in diagnosing multiple chest masses or inoperable chest neoplasma to establish a cell type.

Spread of tumor along the needle tract to the chest wall has been a very rare complication. Pneumothorax will occur in 15 to 30% of patients. With the use of the small gauge aspiration needles as opposed to the larger cutting needles, the need for chest tube placement is fairly rare. Many patients will have a small amount of self-limited hemoptysis, and massive hemorrhage is rare if patients are appropriately screened for bleeding diatheses and the percutaneous technique is reserved for peripheral rather than central lesions. If there is any suspicion that the peripheral lesion may

be vascular, such as an arteriovenous malformation, appropriate studies, such as angiography, must be done to rule out that possibility.

Contraindications to needle aspiration are the presence of blebs or bullae in the immediate vicinity of the biopsy, pulmonary hypertension or inability of the patient to cooperate with breath holding for short periods.

Fine needle aspiration also has been shown to be a useful technique in diagnosing pneumonia, particularly in patients with immunosuppression. Using the technique, we have been able to estab-

TABLE 2
SUMMARY OF DIAGNOSTIC TECHNIQUES

Biopsy Technique	Appropriate Application	Potential Complications
Thoracentesis	Pleural effusion For diagnostic and therapeutic reason.	Pneumothorax—R* Hemothorax—R
Pleural Biopsy	Pleural fluid. Exudate of uncertain etiology. Increases diagnostic yield with malignancy and granulomatous disease.	Pneumothorax—R Hemothorax—R
Fiberoptic Bronchoscopy with Brush and Biopsy	Central endobronchial lesion—yield very high. Peripheral nodules or infiltrates moderate yield, drops to low yield with lesion <2 cm. Diffuse interstitial disease—moderate yield. Search for bleeding site with mild to moderate hemoptysis. Preoperative staging for thoracotomy with neoplastic disease.	Hypoxemia Hemoptysis—R Pneumothorax Hemoptysis Pneumothorax Hemoptysis Worsen hemoptysis
Rigid Bronchoscopy	Massive hemoptysis. Biopsy of upper airway obstructive lesion.	Worsen hemoptysis Further compromise upper airway
Needle Aspiration	Peripheral nodules—yield high. Pneumonic infiltrates (particularly in immunocompromised patients)—moderate yield.	Pneumothorax—C† Hemoptysis Air embolus—R
Open Biopsy	Patient in whom other techniques have not yielded a specific diagnosis and clinical condition warrants surgery. Patients who are critically ill and do not have time to try serial procedures prior to starting therapy. Bleeding diathesis or pulmonary hypertension.	Pneumothorax—C Hemorrhage

* Rare

† Common

lish the diagnosis of such varied entities as Legionnaire's Disease, histoplasmosis, and aspergillosis within a couple of hours after the procedure and initiate appropriate therapy with confidence.

Summary

The three techniques described rarely give false-positive results, but false-negative results do occur. Inability to obtain tissue, or finding normal tissue or nonspecific changes often indicate that further tests must be performed. This can include repeating the same or a different nonthoracotomy technique or performing open thoracotomy. When properly utilized in the evaluation of patients with intrathoracic abnormalities, with cooperative efforts by the clinician, radiologist,

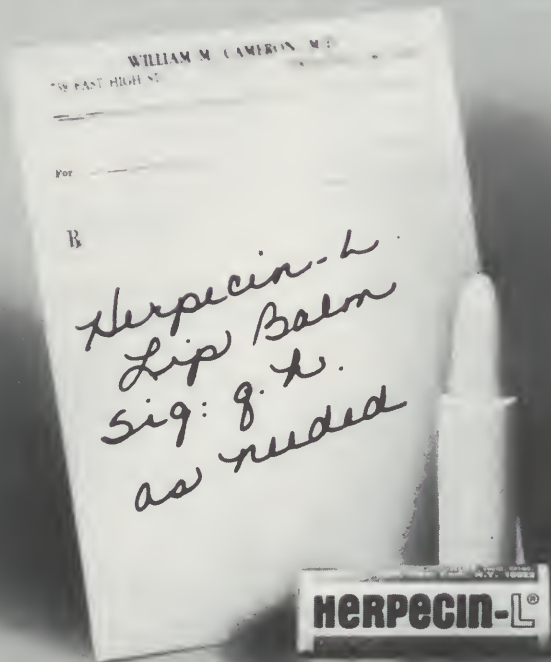
pathologist, cytopathologist, and microbiologist, many patients can be spared thoracotomies. In the situation of a patient with suspected or sputum-cytology-proven bronchogenic carcinoma, pre-operative

fiberoptic bronchoscopy staging of the disease can aid the surgeon in determining the optimal approach to the patient. Table 2 summarizes the appropriate use and associated risks of these techniques.

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Practical Management of the Cigarette-Smoking Patient

THOMAS W. KUEBLER, M.D.
Indianapolis

MOST PHYSICIANS would agree that cigarette smoking is a risk factor in the pathogenesis of a variety of serious diseases. What isn't always clear are the benefits of quitting, the effectiveness of the physician in assisting patients to quit, the magnitude of the problem, and the role of the physician. The following discussion is an attempt to clarify these issues.

Does Quitting Help?

The unequivocal answer is yes. Cessation leads to significant improvement in an individual's risk status regarding lung cancer, ischemic heart disease, and chronic obstructive lung disease. Doll and Hill in their prospective study of British doctors present data which suggest that the risk of lung cancer falls during the first 15 years of cessation and then plateaus at a relatively low level.¹ Other epidemiologic studies support the concept that cessation of cigarette smoking leads to a progressive reduction in risk of developing lung cancer, the most common cause of cancer death.

Cessation of smoking leads to a rapid reduction in risk for ischemic heart disease. A large-scale prospective study of individuals who quit smoking revealed that mortality rates for ischemic heart disease dropped during the first year of cessation and continued to drop during the next 10 to 19 years.² In the

Framingham Heart Disease Study, those smokers who quit after the onset of the study experienced ischemic heart disease attack rates of one-half that of those who continued to smoke.³

A recent epidemiologic study examined the benefits of smoking cessation on pulmonary function. Normally, pulmonary function declines with age. In smokers, this decline occurs more rapidly, and in some smokers the decline is even more accentuated. Cessation of smoking slows the rate of decline to more normal rates which is of clinical

67% of those with a history of smoking never remember a doctor advising them to quit or cut down.

relevance in those smokers who lose function precipitously and become pulmonary cripples.⁴

What are the Dimensions of Quitting?

In 1975, an estimated 53 million people (31% of the total population, age 13 or older) were current smokers of a total population of 168 million (age 13 or older). However, it is interesting to note that there were an estimated 33 million former smokers.⁵ Seventy per cent of these former smokers had not smoked in more than four years, and fewer than 10% had quit within the year before the data were collected, suggesting that most of these former smokers were long-term quitters.⁶ Sixty-one per cent of

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Cessation of smoking leads to a rapid reduction in risk for ischemic heart disease.

current smokers have made serious attempts to stop smoking. Sixty-seven per cent of current male smokers and 75% of current female smokers have cut down the number of cigarettes smoked without trying to stop entirely.

Sixty-seven per cent of those with a history of smoking never remember a doctor advising them to quit or cut down.⁶ This figure is of concern because in 1975 more than 75% of Americans had seen a physician one or more times within the past year.⁷

In summary, the above data support the conclusions that many smokers are able to quit for long periods of time. Smokers make up a significant portion of the U.S. population. A majority of current smokers are trying to quit or to re-

A majority of current smokers are trying to quit or to reduce their smoking.

duce their smoking. And although most smokers will see their doctors in any one year, the majority of smokers do not recall their physicians making an effort to encourage them to quit.

Can a Physician Influence Smokers to Quit?

The answer to this question is yes. A Scottish study reports that 62% of 125 survivors of an acute myocardial infarction remained non-smokers for one to three years. These 125 patients received information and encouragement to stop smoking during their care while in the hospital, at home, and in a follow-up clinic. Only 27.5% of a similar group of cigarette-smoking survivors quit for one to three years after conventional care.⁸

In another study, British civil servants at high risk for cardiorespiratory disease were divided randomly into two groups. The control group

received conventional care. The experimental group was invited to four short counseling sessions where they were advised of the benefits of quitting and encouraged to make up their own minds to quit. After three years of follow-up, 36% of the intervention group had quit⁹ versus only 14% in the control group.

Do you view smoking as a chronic, often relapsing, yet curable disease? If you don't, you should!

Russell, *et al.* recently reported a study in which more than 2,000 smokers, seen by 28 general practitioners, were divided into several groups. The control group received no intervention and their quit rate after one year of follow-up was 10%. But the group that was seen once by a general practitioner who clearly advised them to quit, gave them a pamphlet related to quitting, and told them that he would follow their smoking status, had a quit rate of 19% after one year.¹⁰ The above studies illustrate that doctors can significantly influence their smoking patients without relying on elaborate or expensive procedures.

What Can the Physician Do Now?

The physician should have a precise management strategy in mind for use with cigarette-smoking patients. Imprecise strategies often lead to weak interventions and poor results. The following is a management plan used in the author's practice.

As stated in *Table 1*, the first step is to examine your own views on smoking behavior. Do you view smoking as a chronic, often relapsing, yet curable disease? If you don't, you should! Smoking qualifies as a disease in several ways. A disease can be defined as a morbid process having a characteristic course as it impairs the vital functions and structure of an individual.

All smokers develop some degree of small airway disease.¹¹ Specific anatomic lesions have been correlated with small airway dysfunction revealed on physiologic testing.¹² The small airway disease appears to be reversible.¹³ Also, some heavy cigarette smokers appear to have a definite dependency disorder, nicotine dependency, similar to opiate dependency. Smokers appear to develop tolerance to nicotine,¹⁴ develop withdrawal symptoms, and smoke cigar-

TABLE 1
Plan for Managing the Smoking Patient

1. View cigarette smoking as a chronic, often relapsing, disease. The medical record should reflect your viewing cigarette smoking as a disease.
2. Diagnose cigarette smoking.
3. Ask smoking patients if they understand how smoking may harm them. Correct errors. Ask them if they understand how quitting will help them. Correct errors. Encourage them to make up their minds to quit and then to do it. Make it clear you recommend they quit.
4. Follow their smoking behavior in future visits as you would any other serious chronic problem.
5. For those unable to quit on their own, refer, if they are willing, to reputable community resources. Consider, as well, encouraging pipes, cigars, fewer cigarettes, cigarettes with less tar and nicotine, snuff, or chewing tobacco for the patient who has difficulty quitting.
6. Use your office environment in your anti-smoking efforts. Encourage staff to act as exemplars and to quit or not smoke in the presence of patients. Use posters and pamphlets in waiting area to educate. Encourage no smoking in your office.

ettes in a manner to maintain nicotine levels in their bodies.¹⁵

In summary, all cigarette smokers develop some dysfunction of the small airways, and some smokers develop nicotine dependency. Therefore, cigarette smoking should be viewed as a disease and not just a risk factor for other diseases, or simply as a habit or maladaptive behavior pattern. Your medical record should reflect the concept that smoking is a disease. If you use problem lists, smoking should be on the list. Progress notes should reflect evaluations

Make it clear to patients that you recommend they quit. Remember, more than 30 million smokers have quit.

and treatments regarding the patient's cigarette smoking. Identification of the cigarette smoker is a relatively easy step and usually can be accomplished during history taking.

The treatment of hypertension usually is precise and so should be the treatment of cigarette smoking. Ask the smoking patients to explain specifically what the dangers of cigarette smoking are, and then correct any mistaken beliefs. It is not unusual for smokers to be quite vague in their understanding of the dangers of cigarette smoking. Next ask smokers about the benefits of quitting and correct erroneous beliefs. Encourage the patient to make up his mind to quit and then to do it. Make it clear to patients that you recommend they quit. Remember, more than 30 million smokers have quit.

Follow smoking behavior during subsequent visits. Don't expect miraculous cure rates. Remember the study by Russell, *et al.* had a 19% quit rate. Be encouraged even if only one patient quits. Recidi-

Smoking is a chronic disease, so manage it as you would other chronic diseases by following its activity during subsequent visits.

vism is common. When it occurs suggest to patients that they proved they can quit once; now the problem is quitting for good. Behavior change can come easily or only after a difficult struggle. Smoking is a chronic disease, so manage it as you would other chronic diseases by following its activity during subsequent visits. For the smoker who wants to quit but has difficulty doing so, refer to local programs. I refer a few willing patients to a psychiatrist-hypnotist or a weekly clinic run by the local affiliate of the American Lung Association. Some patients who continue to have difficulties with quitting are encouraged to use less hazardous tobacco products such as inhaled snuff or a pipe.

Patients who have smoking-relat-

ed problems such as angina pectoris or chronic obstructive pulmonary disease may be more motivated to quit than others. For patients who fear weight gain with cessation, recommend reasonable diets or a dietitian referral if weight gain occurs. Use your office to communicate to your patients information about smoking and discourage smoking by the presence of anti-smoking pamphlets and posters and signs requesting patients not to smoke. Encourage staff to act as exemplars by quitting or at least by not smoking around patients.

Summary

The benefits of smoking cessation are significant. There are millions of ex-smokers. Most smokers are interested in quitting, but most don't remember their physicians advising them to quit or cut down. Physicians who develop management strategies can play an important role in helping their smoking patients to become ex-smokers.

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DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosterone-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male; 1. Eunuchoidism and eunuchism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-pubertal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpubertal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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The Placement of a Le Veen Shunt into the Right Atrial Appendage

A New Solution to a Clinical Problem

RANDALL K. WOLF, M.D.
P. T. BUNTIN, M.D.
PAUL SCHMIDT, M.D.
HARRY SIDERYS, M.D.
Indianapolis

THE LE VEEN peritoneojugular shunt has been proposed for the therapy of ascitic cirrhotic patients, intractable to medical management or with renal insufficiency.^{1,2} Recently, there have been reports of superior vena cava syndrome (SVC) secondary to superior vena cava thrombosis following placement of Le Veen peritoneojugular shunts.^{3,5} Organized thrombus around the venous end of the shunt (extending into the superior vena cava) resulting in pulmonary embolus also has been reported.⁴ This is a report of SVC syndrome, following Le Veen shunt placement, which was treated in a unique manner.

Report of the Case

A 72-year-old white woman with a two-month history of increasing abdominal girth and lack of appetite presented with gross ascites, without pain or jaundice. Work-up included an open liver biopsy, which revealed postnecrotic cirrhosis probably secondary to a viral hepatitis. A Le Veen peritoneo-

jugular shunt was placed into the right internal jugular vein after her ascites proved intractable to conventional medical management.

Postoperatively, the patient's weight decreased from 136 lbs. to 104 lbs. and over the next three months she was able to return to her usual activities. Following this symptom-free interval, the patient noticed an increase in weight (from 104 lbs. to 120 lbs.), enlarging neck veins, frequent headaches, increased abdominal girth, and watery swollen eyes. There was no shortness of breath, dyspnea on exertion, postural nocturnal dyspnea or peripheral edema.

She was referred to this institution with a diagnosis of superior vena cava syndrome and recurrent ascites.

Examination at the time of admission revealed a thin white woman with marked abdominal distention. Neck veins were distended to 19 cms., with the patient upright, with normal neck vein pulsations. Her abdomen was distended but non-tender and shifting dullness was appreciated. The liver was per-

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cussed to 12 cm. Examination of the extremities revealed normal peripheral pulses and no peripheral edema. The lungs were clear and no cardiomegaly was identified.

A superior vena cavagram revealed partial obstruction of the SVC. A shuntogram was performed, which revealed a thrombus at the proximal tip of the tubing at the junction of the SVC and right atrium. Right heart catheterization also was performed, which revealed a moderate-sized thrombus at the superior portion of the right atrium. Right heart dynamics were within normal limits and pericardial thickness was interpreted as normal.

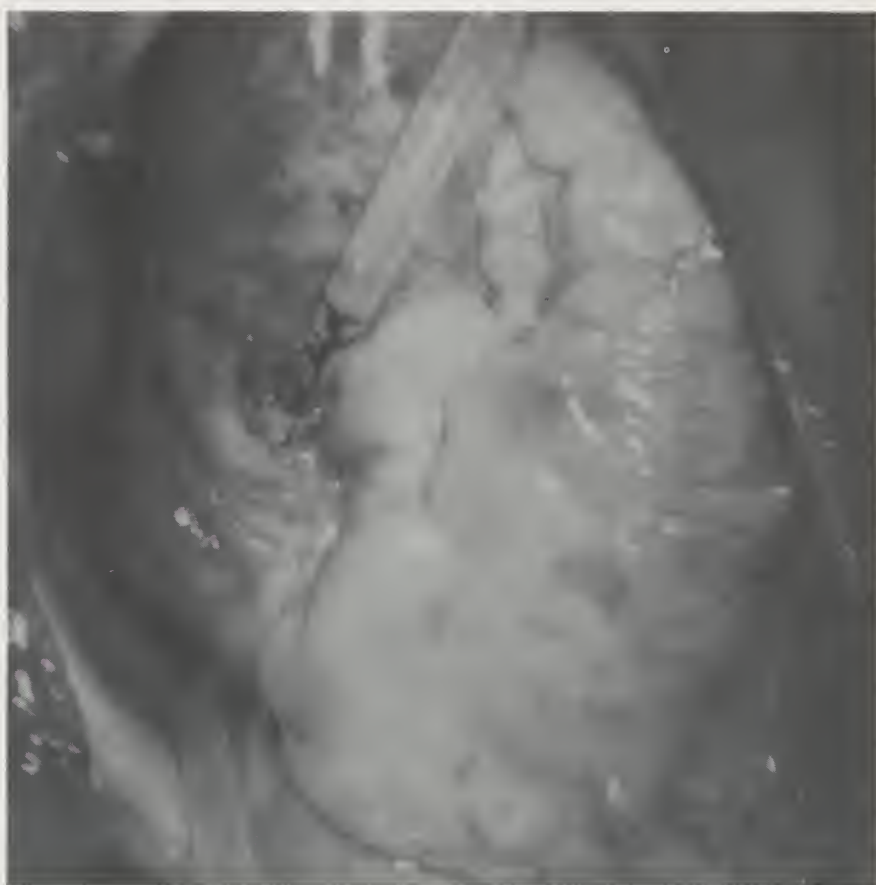
On the 15th hospital day a median sternotomy was performed. The previous Le Veen shunt was removed from the right flank and was then removed from the right atrium-SVC junction.

Following this, a new Le Veen shunt was placed into the peritoneal cavity and tunneled subcutaneously so that it entered the subcostal space and then the pericardial space. The catheter tip was then introduced into the heart through the right atrial appendage and the catheter was sutured in place. (See figure)

Postoperatively, the patient's weight decreased from 122 lbs. to 112 lbs. and the ascites gradually disappeared. She was given Lasix[®] in the early postoperative period, but this medication was discontinued prior to discharge. She was anticoagulated with Coumadin[®] in the postoperative period, and it was felt this should be continued indefinitely.

Comment

Superior vena cava syndrome resulting from placement of a Le Veen shunt has been previously reported. This occurrence is associated with failure of the shunt to function.^{3,5} Shunt function was restored utilizing a technique not previously



The shunt is shown entering the pericardial space from below, coursing posteriorly and then superiorly in the pericardial space to enter the right atrial appendage from above.

reported, with apparent good results for six months. The placement of the venous end of the Le Veen shunt into the right atrium appears to be a reasonable solution in a small group of patients, dependent on a functioning Le Veen shunt, who have obstructed their shunts as well as their superior vena cava. The addition of chronic Coumadin[®] therapy appears to be important in this group of patients.

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Alcohol and Alcoholism

ETHYL ALCOHOL, said to be the oldest of our drugs, is known to have been used in Mesopotamia five thousand years ago. It is the most widely used, the most widely abused and the most dangerous of all known drugs.

Alcohol has been a factor in politics, economics, history, and religion. It has been used as a food, a medicine, as a symbol in religious rites and as a beverage.

In our contemporary society today it is used as an acceptable beverage without due consideration being given to the fact that it is a drug.

Alcohol was brought to America in 1607 at the time of the establishment of the Virginia Colony.

In a diary, found in the Mayflower, dated Dec. 17, 1620, their leader, William Bradford, made the following notation: "Landing at Plymouth was necessary as we could not now take time for further consideration, our victuals being most spent, especially our beere."

The first license to open a brewery was issued by the Massachusetts Bay Colony to Robert Segerist in 1637. Samuel Adams was later numbered among the brewers and it is said that George Washington had his own recipe for making beer.

Alcoholic beverages were prescribed by physicians for several centuries, as a cure for almost every ill. A German interested in pharmacology said regarding alcohol: "It eases the diseases coming of cold. It comforts the head and heals all old sores and new ones on the head. It

The author is a member of the National Professional Writers Club and of the International Platform Association. Other articles she has written for THE JOURNAL include "Tobacco: Dangerous to the Lungs" (June 1980), "Tea: Symbol of Our Country?" (May 1979), and "Coffee: Good for What Ails You?" (February 1978).

JESSIE M. STEVENSON Indianapolis

causes a good color in a person. It heals baldness and causes the hair to grow and kills lice and fleas. It heals the short breath. It takes away all belching. It draws the wind out of the body. It eases the yellow jaundice, the dropsy, the gout and heals all diseases of the bladder and breaks the stone." It is said that beer or wine was included in about 15% of the prescriptions of Egyptian physicians.

Physicians today consider alcohol to be a valuable drug. They prescribe it in small amounts to the elderly as an appetite stimulant, or for circulatory problems and as a sedative.

Before the discovery of ether, alcohol was the only drug used for surgery. It is not used as an anesthetic today because the dosage which would cause unconsciousness is almost equal to the dosage which would cause death.

A suggestion for curing the most severe effects of hard drinking was given by Pliny, the Elder, in the first Christian century. He said: "Screech owl eggs given in wine to a drunkard for three days will produce a distaste for the drink."

Dr. Parran, a former Surgeon General of the United States, said: "Alcohol is the major cause of insanity, and poison from it causes more deaths than from all our infectious diseases."

D. L. Wilbur, M.D., president of the American Medical Association in 1968, stated: "If alcoholic beverages were initiated today they would be outlawed, just as this nation outlawed marijuana, LSD and other dangerous drugs."

The *American Issue* in 1971 stated: "Americans drink in almost

total ignorance of the potential consequences." It is said that alcohol is the third leading cause of death in the United States. Alcoholics have a death rate 3-4 times higher than non-alcoholics.

George Gallup, Jr., of the Polls says that about three in 10 Americans are total abstainers and nearly half of all Americans disapprove of drinking.

Excessive use of alcohol leads to alcoholism. A government report states an adult (20 years old or older) who is an alcoholic type is one who is unable consistently to choose whether he should drink or not and who, if he drinks, is unable consistently to choose whether he should stop or not.

The National Council on Alcoholism describes the alcoholic as "a person who is physically dependent upon alcohol and suffers a painful withdrawal when cut off from it." If he experiences a "hangover" he can relate to a statement by George Ade: "Last night at twelve I felt immense, but now I feel like thirty cents."

An early report of the Rand Corporation stated that an alcoholic might return to "moderate drinking." The Corporation later refuted its report. It has been stated that it is never safe for the alcoholic to drink again.

It has been pointed out that "skid row" addicts represent only 3-5% of the total alcoholic population of the country.

The *Reader's Digest 1980 Almanac* reports the dangers of alcoholism.* Some 100 million Americans consume alcoholic beverages. Experts estimate that 13.3 million

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of this group are alcoholics, including 3.3 million youths aged 14 to 17. About one-third of alcoholics are women. The vast majority of alcoholics are in their mid-thirties with good jobs, homes and families.

Alcoholism costs Americans \$43 billion a year in lost work, medical expenses, auto accidents, and related problems.

As many as 205,000 deaths a year can be blamed on drinking.

An alcoholic is 2 to 6 times more likely to die of disease, accident, or violence than the average person.

36% of high school students get drunk at least four times a year. About 1 in 20 gets drunk at least once a week.

26% of the admissions to state and county mental institutions are persons with alcohol-related problems.

Between 30% and 40% of delinquent children come from alcoholic homes.

Drivers and pedestrians who drink cause more than 800,000 crashes and 25,000 traffic deaths in the United States each year.

24% of alcoholics die in accidents, falls, fires and suicides.

33% of those who take their own lives are alcoholics—a suicide rate 58 times higher than for the rest of the population.

In addition to the above statistics there is another danger, the fetal alcohol syndrome. David Smith, M.D., one of the first scientists to identify this syndrome, said: "It now appears that one in every 350-500 infants is born with some type of mental or physical defect caused by the mother drinking during pregnancy." When the mother drinks, the unborn baby also drinks. Sometimes after the baby is born it experiences withdrawal symptoms.

It is also interesting to note that most doctors used to place brain damage from alcohol rather low on

the scale as one of the effects of hard drinking. But Melvin H. Knisely, M.D., and associates of the Medical University of South Carolina, made what may be called the "most important medical discovery of this generation."

As stated in the Medical Letter of 9-28-79, Doctor Knisely and his associates discovered that when a person takes only one drink the red cells start to clump; a phenomenon called "sludging" occurs. This can cause many very small arteries to be plugged, interfering with circulation to the cells. Since the brain is the most sensitive organ in our body to the lack of oxygen, it is the most severely affected by sludging. Brain cells are irreplaceable. This discovery can be attested to by the fact that recovered alcoholics may at some future time suffer from brain damage which occurred when they were alcoholics.

Other organs in which alcohol can cause damage are the stomach, kidney, glands, liver, heart, circulation, eyes, ears and the nervous system.

Thomas Trotter, M.D., in 1804 was the first to consider an alcoholic as one suffering a health problem rather than being a criminal. He said alcohol addiction was "a disease of the mind."

In 1956 the American Medical Association recognized alcoholism to be a disease. The U.S. Department of Justice, the World Health Organization and others all affirm it is a treatable disease.

There are many treatment centers available all over the country for the alcoholic. Industry has endeavored to meet the problem by setting up alcohol related programs for its employees. Many, of course, have benefited by Alcoholics Anonymous, an organization begun 45 years ago by William Wilson and Robert Smith, M.D. The organization now has an estimated million members. The first step in

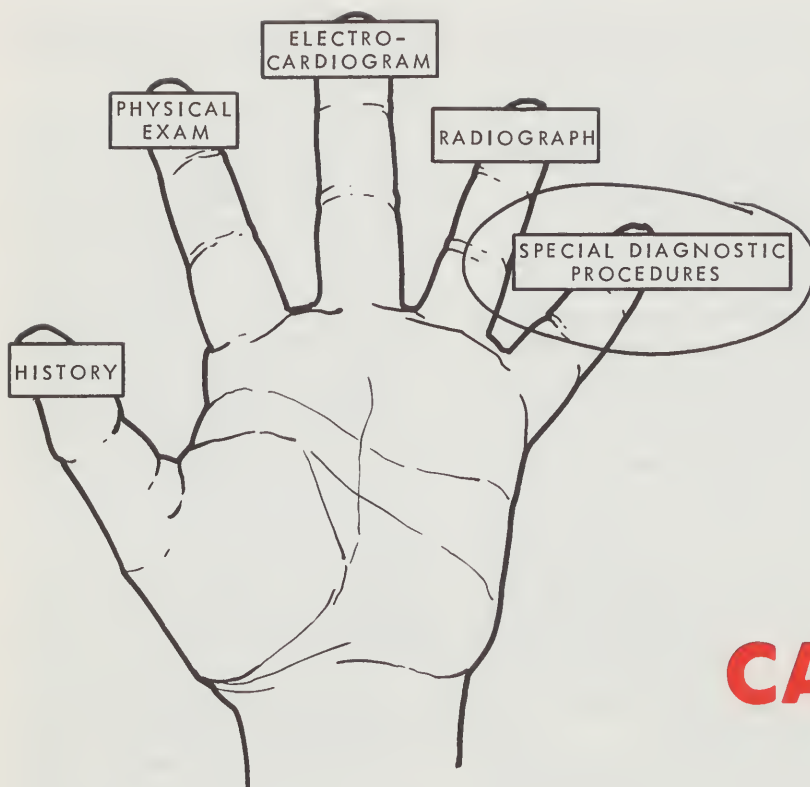
treatment is getting the person afflicted by alcoholism to realize that he is an alcoholic.

There are those who contend that since this drug is so potentially dangerous to 10% of its consumers, warning labels should be placed on bottles containing alcoholic beverages. In fact, Senator Strom Thurmond introduced such a bill, S. 427, on Feb. 9, 1979. The partial wording of this bill was as follows: "Caution: Consumption of alcoholic beverages may be hazardous to your health, may be habit forming and may cause serious birth defects when consumed during pregnancy." Senator Thurmond said that the bill was never reported out of the Senate Committee but was attached as an amendment to S.440 which was passed and now is public law #96-180. He said that his bill was substantially amended before S. 440 was finally passed.

The statement is made in #96-180 that a report be made to the President and Congress to decide "the actions which should be taken by the Federal Government under the Federal Alcohol Administration Act and the Federal Food, Drug, and Cosmetic Act with respect to informing the general public of such health hazards."

In a recent article in the *Indianapolis Star*, Harold Thompson, administrator of the Koala Center at Lebanon, Ind., stated there are 500,000 persons with drinking problems and 250,000 alcoholics in Indiana. He proposed educational programs throughout the state, "beginning with the pregnant mother." He also said educational programs should be started in the state's kindergartens.

When parents say they would prefer their children use alcohol rather than the "hard" drugs, they are forgetting that alcohol is the most dangerous drug of all and that alcoholism is the nation's number one health problem.



THE FIVE FINGERS OF CARDIOLOGY

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The Five-Finger Approach to Cardiac Diagnosis was conceived by W. Proctor Harvey, M.D., of Georgetown University, and further developed by J. Willis Hurst, M.D., of Emory University into its present form: The integration of all five approaches is diagrammed into a "fist" of cardiac diagnosis.

Periodically, THE JOURNAL will present a "finger of cardiology" as a self-assessment, emphasizing current and innovative diagnostic and therapeutic principles.

A 55-year-old lady suffers from severe, progressive angina pectoris. Despite therapy with maximally tolerated doses of beta blockers, nitrates, and calcium antagonists, the patient remains incapacitated by both exertional and rest angina.

Coronary cineangiography was undertaken. The left ventriculogram was normal. The left coronary angiogram was normal. The right coronary angiogram is illustrated in *Figure 1*.

QUESTIONS

- What are the therapeutic options?
- What would be your recommendation?
- What are the results of the therapy you recommend?

ANSWERS

The patient remains completely disabled, despite maximal medical therapy with conventional agents and the addition of calcium antagonists. Calcium antagonists (specifically Nifedipine), prevent coronary spasm and at the same time reduce myocardial oxygen demand. Hence, these agents often ameliorate angina when other agents fail. However, in this patient, angina continues.

The options at this point include: 1) Coronary artery bypass surgery and 2) Percutaneous transluminal coronary angioplasty.

Percutaneous transluminal coronary angioplasty—the technique by which a stenosed coronary artery is dilated by inflating a balloon-tipped catheter against the atherosclerotic plaque—is a technique which is being utilized, initially for patients with single vessel, proximal coronary artery disease.

The technique will not replace coronary artery bypass grafting, since patients with appropriate coronary stenotic lesions constitute only 5-10% of those with atherosclerotic disease undergoing angiography. In appropriately selected patients, the technique has been successful about two-thirds of the time, resulting in relief of angina with normal effort tolerance and negative exercise stress tests. However, when the technique is unsuccessful, additional coronary narrowing may result, necessitating urgent surgical revascularization.

The patient underwent percutaneous transluminal coronary angioplasty. In *Figure 2A*, the balloon is inflated across the stenosis. In *Figure 2B*, the right coronary angiogram after angioplasty demonstrates a widely patent lumen. The gradient across the stenosis has been totally relieved.

The patient remains completely asymptomatic of angina on reduced medications following the angioplasty.

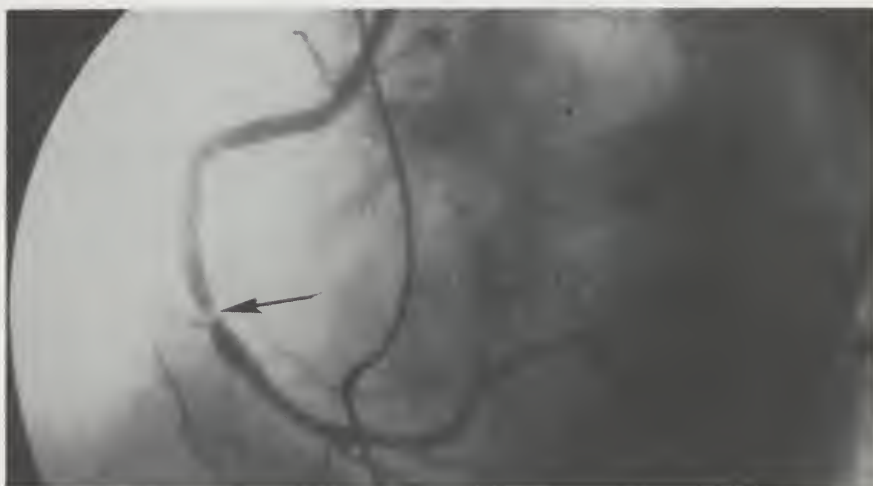


FIGURE 1



FIGURE 2A

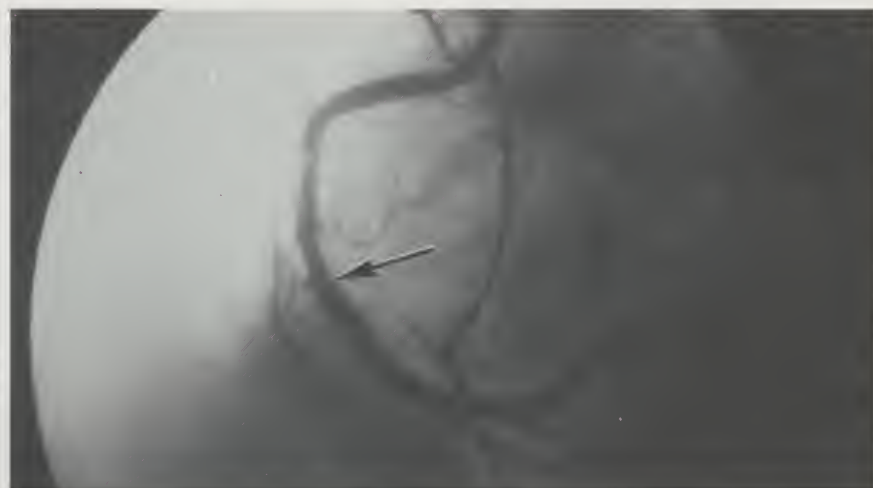


FIGURE 2B

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AMA Cites Publications For Refusing Tobacco Ads

The AMA has congratulated a group of magazines published in the U.S. for their refusal to accept tobacco-product advertising.

In letters to publishers of the magazines, the AMA said, "The effects of tobacco on the human body are no longer in doubt . . . In view of the overwhelming evidence against smoking, your policy of refusing to accept tobacco advertising can only be construed as an unselfish public act . . . America's physicians applaud your action."

The magazines cited were: Reader's Digest, Good Housekeeping, Parent's Magazine, Better Homes and Gardens, Science Magazine, Natural History Magazine, Seventeen, Yankee, Sunset Magazine, The New Yorker, Scientific American.

Changing Times, Vital Magazine, National Geographic, Quest, Adirondack Life, Family Health, American History Illustrated, British History Illustrated, Arizona Highways, The Futuris, Boy's Life, Florida Sportsman.

Motor Boating And Sailing, Popular Photography, 1001 Decorating Ideas, American Preservation, North American Review, Dance Magazine, Smithsonian, Jack and Jill, Children's Digest, Moment Magazine, The Sciences, The Public Interest.

Architectural Digest, Mother Jones, Horticulture, The Mother Earth News, Bride's Magazine, Modern Bride Magazine, Scholastic Magazines, Audubon Magazine, Art in America, Brown's Guide to Georgia, Writer's Digest, The Writer.

Contemporary Issues in Hodgkin's Disease: Biology, Staging and Treatment

A symposium sponsored by the National Cancer Institute and the Cancer Clinical Investigation Review Committee; to be held at the San Francisco Hilton, San Francisco, Sept. 9, 10, 11 and 12.

The emphasis of this multidisciplinary international symposium will be placed on controversial issues in clinical management. An outstanding international faculty has been organized to inform interested physicians and allied health

personnel of recent developments. Selected proffered papers will also be presented.

For more information contact the: Hodgkin's Disease Symposium c/o Lili Zubar, Box 277, University Hospitals, University of Minnesota, Minneapolis 55455.

National Large Bowel Cancer Project Newsletter

To receive a copy or be added to their mailing list write to: The University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute, National Large Bowel Cancer Project, Houston Main Building—Room 850, 6723 Bertner Ave., Houston, Texas 77030.

New Professional Materials Available

The following new materials are now available for professional education. The tape is available for free loan only. The publications are provided without charge to qualified professionals. All items may be ordered directly from: Manager of Distribution, American Cancer Society, Indiana Division, Inc.

Please specify title, code number, and quantity desired when ordering.

1. *Meeting Highlights: American Cancer Society National Conference on Gynecologic Cancer—1980*, Code No. 3702. This tape contains highlights of the three-day conference held in Los Angeles Oct. 9-11, 1980. Topics include: The Value of Screening, Immunologic Aspects of Gynecologic Cancer, Pretreatment Staging, Trophoblastic Tumors, Psychosocial Impact of Gynecologic Cancer, and Cryosurgery and Laser Therapy.

2. *Cancer Pain: Psychological Management Using Hypnosis*, Code No. 3385. Psychological approaches are

important in the management of cancer pain, and hypnosis is a particularly useful technique that can be integrated into the total care of the patient. This publication outlines the main advantages of hypnosis, selection of candidates, self-hypnosis, and six hypnotic strategies. Four case reports illustrate the application of hypnosis in cancer management.

3. *Nurses: The Challenge to Action in Antismoking Efforts*, Code No. 3340. This article delineates the role of all educators as role models and advocates in the formulation of policies controlling smoking practices in health care facilities and other public centers.

4. *Home Oncology Medical Extension: A New Home Treatment Program*, Code No. 3341. Home Oncology Medical Extension (HOME) was begun at North Shore University Hospital in Long Island, N.Y. This article was written by members of the HOME team and describes the initial experiences of this innovative program, including patient eligibility and characteristics, the medical team, the van and its equipment, and HOME services.

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[†]Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent) and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, throm-

bocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently, both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Anti-hypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transiently elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with

possible metabolic acidosis. Dyazide interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules, Single Unit Packages (unit-dose) of 100 (intended for institutional use only), in Patient-Pak™ unit-of-use bottles of 100.

©SK&F Co., 1980

SK&F CO.
a SmithKline company
Carolina, P.R. 00630

Motrin[®] vs aspirin w/codeine...

(ibuprofen)



compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients.

In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups...

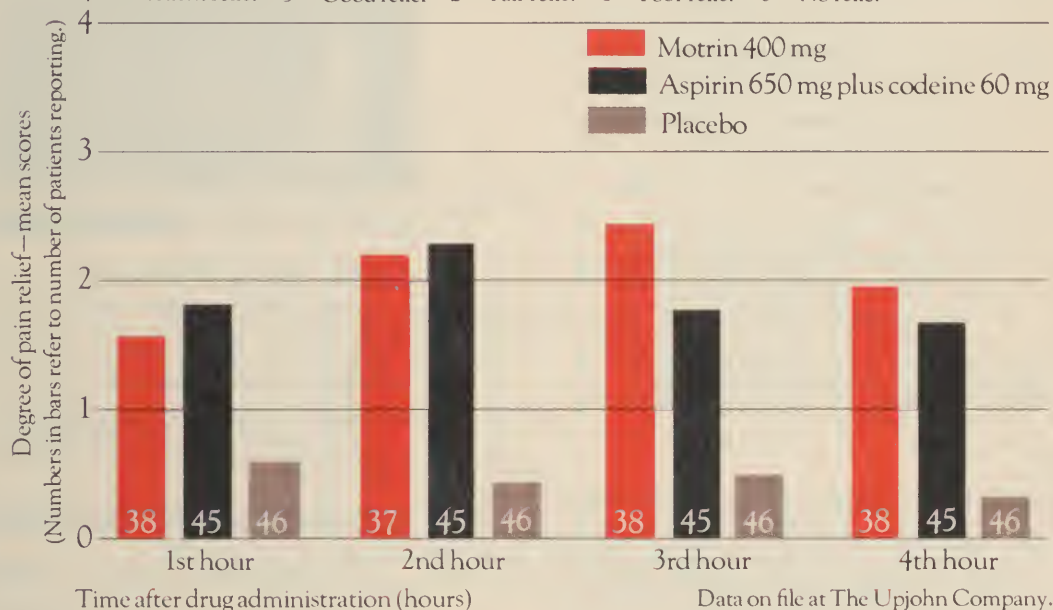
with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval.

Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief

Motrin vs aspirin-codeine combination

4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



Data on file at The Upjohn Company.

One tablet q4-6h prn

For relief of mild to moderate pain:

Motrin[®] 400mg TABLETS
ibuprofen, Upjohn

- Not a narcotic • Not addictive • Not habit forming • Nonscheduled
- Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin[®] (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin[™] Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels.

Coumarin: Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

MED B-4-S

WHY I'M A UNITED WAY VOLUNTEER



STEPHEN GRAHAM

Home: Seattle, Washington

Career: Attorney

Age: 29

Married: One daughter

Interests: Hiking, writing, cartooning, bicycling and volunteering for United Way

"Because there's more to my life than just me.

"Like being with my family. Hiking along the timberline. And getting involved in my community.

"Volunteering for United Way adds another dimension to my life. I'm putting my skills to work for the benefit of the entire community. And I'm meeting all kinds of people who are doing the same.

"Most important of all, I'm learning more about human care needs. And how—as a United Way volunteer—I can make a difference here in Seattle. It's a valuable lesson in leadership.

"By helping shape my community's future, through United Way, I'm more than just living my life. I'm fulfilling it."



**Thanks to you...
it works...**

for ALL OF US United Way



CME QUIZ

Nonthoracotomy Diagnostic Techniques

CONTINUED FROM PAGE 215-219

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Indications for pleural biopsy would be
 - a. Transudative effusions of uncertain etiology.
 - b. Patient with mitral stenosis and recurrent effusion.
 - c. Suspected pulmonary infarction.
 - d. Exudative effusion of uncertain etiology.
2. A pleural effusion with an LDH level of 260 units
 - a. Is commonly seen with heart failure.
 - b. Indicates an exudative cause.
 - c. Would rule out an effusion of malignant etiology.
 - d. Indicates probable laboratory error.
3. Pleural biopsy in a patient with a small pleural effusion
 - a. Is too risky to attempt.
 - b. Is unlikely to give useful clinical information.
 - c. Can be facilitated with ultrasound localization of the fluid.
 - d. Should be postponed until the volume of the effusion increases.
4. An appropriate initial action would be
 - a. Try to locate old chest films to see if the lesion was present and unchanged 24 or more months ago.
 - b. Recommend immediate thoracotomy and resection.
 - c. Have him return in one year for repeat film, sooner if symptoms develop.
 - d. Apply a histoplasmin skin test.
5. If bronchoscopy is performed on this 50-year-old man,
 - a. General anesthesia would be required for an adequate examination.
 - b. Blind brushing and saline lavage aspirates of the right lower lobe branches should be adequate to make a diagnosis.
 - c. Selective brushing and biopsy under fluoroscopy increases the chance of getting a diagnosis.
 - d. Only the right side should be inspected since the left side was normal on x-ray.
6. Prior to the bronchoscopy which of the following studies should be considered?
 - a. Arterial blood gases.
 - b. Platelet count and other bleeding tests.
 - c. Electrocardiogram.
 - d. All of the above.
7. If a transbronchial biopsy shows nonspecific inflammatory changes in the right lower lobe parenchyma,
 - a. No further studies need be done at that time.
 - b. The need for a possible thoracotomy has not been eliminated.
 - c. Broad spectrum antibiotic therapy should be instituted.
 - d. Serologic studies for tuberculosis should be drawn.
8. If a malignant lesion is found in the right main stem bronchus during bronchoscopy,
 - a. A main carinal biopsy should be considered to help determine resectability.
 - b. The examination need not be prolonged by examining the left side.

Questions 4 through 9 refer to the following history.

A 50-year-old man with a 40-pack-year smoking history is found to have a peripheral 2 cm nodule in the right lower lobe. The x-ray was taken as part of a pre-employment physical. He is asymptomatic.

4. An appropriate initial action would be
 - a. Try to locate old chest films to see if the lesion was present and unchanged 24 or more months ago.

Following are the answers to the CME quiz that appeared in the March 1981 issue of THE JOURNAL: "On the Prevention of Amputations," by Kenneth R. Woollong, M.D.

March CME Quiz Answers

- | | |
|------|-------|
| 1. c | 6. c |
| 2. d | 7. d |
| 3. b | 8. d |
| 4. b | 9. a |
| 5. d | 10. c |

CONTINUED ON PAGE 247

Answer sheet for Quiz: (Nonthoracotomy...)

- | | |
|------------|-------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for credit for this month's quiz, send your completed, signed application before May 10, 1981, to the address appearing at the top of this page.

RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
Office of the Commissioner
Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

In the early days, human beings *had* to be physically active for two basic reasons: to provide themselves with the necessities of life—food, clothing, and shelter; and for sheer pleasure—to express hopes, joys, and fears in a primitive and emerging society. However, as our society became more affluent and developed higher and higher degrees of sophistication, the individual's need to be physically active diminished to "zero."

To be fully effective, we believe that any attempt to control the cost of health care must stress prevention and any serious effort to improve the living habits which ultimately disable or prematurely kill so many Americans must include a serious commitment to exercise and fitness.

The Indiana State Board of Health has a keen interest in the development of safe sports and physical fitness activities which is at least twofold. First, we are convinced of the importance of physical activity to the health of the nation; and secondly, it will help the agency staff accomplish its mission, which is to prevent premature deaths and improve the quality of life for all our citizens.

In the past, successful public health programs—i.e., sanitary living conditions and immunization practices, among others—resulted in almost immediate prevention of the spread of communicable disease. However, rather than the passive public participation of the past, what we accomplish in the future will require the actions of individuals who are informed and motivated to adopt life-styles that help ward off the chronic diseases and the debilitating effects associated with aging. New concepts, techniques, and procedures will be necessary to achieve results comparable to those which were achieved in the past.

To this end, your State Board of Health has developed and sup-

ported the Indiana Governor's Council on Physical Fitness and Sports Medicine which is dedicated to the concerns expressed in this article. Additionally, we have encouraged: the creation of an International Sports Science Institute here in Indiana, the development of the White River Park with strong sports and health components, along with the strengthening and expanding of amateur athletic programs.

The success of these activities will hinge heavily on the continued leadership of the medical community!

Science and medicine have long suspected, and are now proving, that physical fitness (assuming the human organism is organically sound) is essential to achieve and maintain the maximum state of health. Thus, we have a modern reason for including physical activity in our lives and that of our patients.

Today, heart attacks kill more than half a million Americans every year, many of them middle-aged men and women at the peak of their working years. The American Heart Association estimates that the cost of recruiting their replacements drains another \$700 million annually from American industry.

A single element of sedentary behavior, the common backache, accounts for a billion dollars a year in lost output and another \$250 million in workmen's compensation claims.

Equally significant are hidden costs, which are much more difficult to estimate. The individuals who lack physical fitness are more likely to be ill more often, and recover more slowly, than workers who are fit. Efficiency and productivity are also affected, and chronic fatigue and lethargy increase the risk of on-the-job accidents.

In addition, lack of fitness con-

tributes directly to the steadily rising costs of health insurance, as well as health costs in general.

It has become popular to blame health care providers for the drastic cost increase and what is perceived as inferior care; the fact is, despite significant scientific advances in the health care fields, death rates and life expectancies are little improved over a generation ago.

The reason? An American's health is far more likely to be imperiled by his or her own conduct than any other factor. According to Richard E. Palmer, M.D., of the American Medical Association, "The medical system affects about 10% of the usual factors that determine a patient's state of health."

In the words of the U.S. Public Health Service's "Forward Plan for 1977 to 1981":

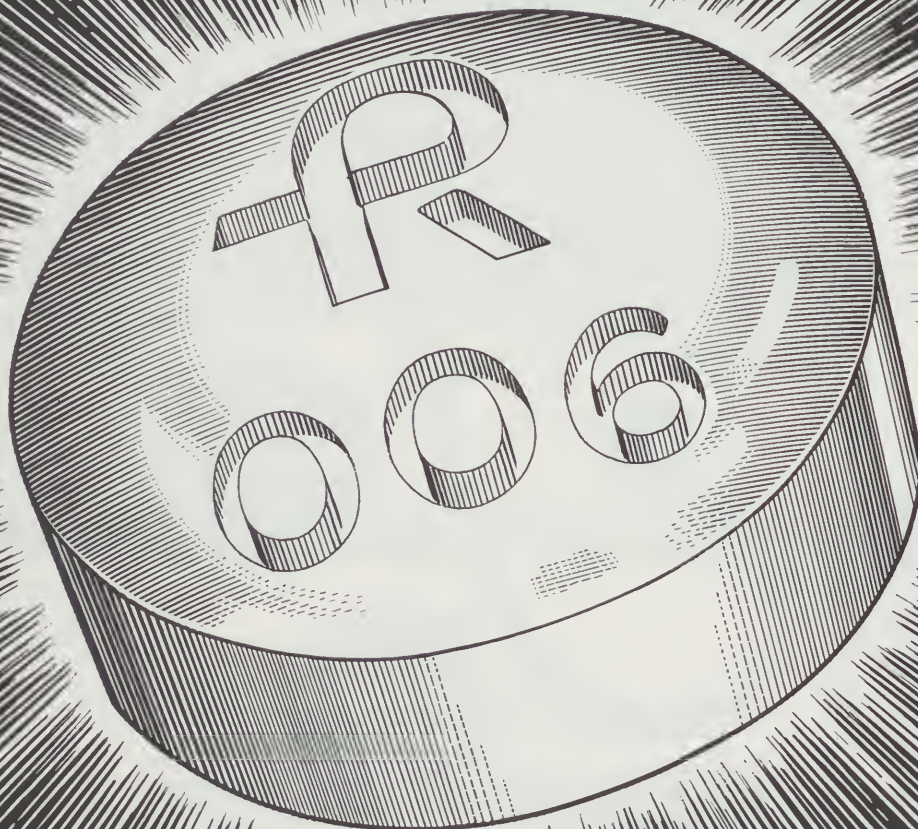
"Habitual inactivity is thought to contribute to hypertension, chronic fatigue, and resulting physical inefficiency, premature aging, poor muscle tone, and lack of flexibility which are the major causes of lower back pain and injury, mental tension, coronary heart disease and obesity. By contrast, studies have reported that regular exercise can lower serum triglycerides, reduce the clinical manifestations of heart disease, improve the efficiency of the heart and circulation, and reduce blood pressure levels in individuals with hypertension."

As more scientific studies are being done, the medical evidence is becoming overwhelming—that people who live sensibly and keep physically fit are healthier, feel better, and live longer than those who don't.

According to one estimate, regular exercise can reduce absenteeism by three to five days a year per employee. Obviously, that statistic applied across the nation would result in tremendous savings to business and industry in terms of added productivity.

Will your generics need a lawyer?

Beware! Many state laws, now in effect or proposed, require the identification of product, strength and manufacturer on each solid doseform to be legal for generic substitution. If you dispense unidentified drugs, after effective date of legislation, you're dispensing in violation of such laws.



Purepac generics coded for legal substitution.

Purepac's coding system, to be phased in during 1981, will meet every state's legal requirements. Tablets and capsules will be imprinted with a code number and Purepac's symbol. This symbol **R** identifies a Purepac product. The code number designates the name of the product and its strength. For rapid identification, these code numbers will be listed in Purepac's catalog and the *Physician's Desk Reference*. This system provides instant identification which can prove useful in saving lives from accidental overdose.

Watch out for serious offenders.

Will your generic pharmaceutical supplier be able to meet all identification requirements—especially if that

supplier is not a manufacturer? Products not properly coded then violate the law! And by dispensing them, you're substituting illegally. And taking big risks.

Don't take chances. Be sure you're dispensing a legal generic. Be sure it's Purepac!



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AUXILIARY REPORT

Dorothy (Mrs. Herbert A.) Schiller
President, ISMA Auxiliary

This issue completes our reports to you for the 1980-1981 auxiliary year. It has been a busy year for me, filled with giving speeches, making reports, writing articles, meeting deadlines, attending meetings and traveling up and down and across our great state of Indiana. And now, we have reached the end of the road. But this is not the end—it is the beginning. It soon will be the beginning of a new auxiliary year when new officers and a new board will report to you.

These last 12 months have passed speedily. They have been good, satisfying, and rewarding months. As I visited the numerous counties throughout the state, it was a joy to observe the progress

and achievements of each auxiliary. Interestingly enough, each county auxiliary has its own unique personality, ideas and accomplishments. It was good to see the ways the members have chosen to work in the auxiliaries, in their communities and with their medical societies. Your spouses followed my theme for the year and I thank them for what they did: They have been wonderfully ACTIVE in auxiliary, INVOLVED in their community, CONCERNED with the future of medicine.

The highlight of my year has been traveling to your cities and towns and getting to know the many auxiliaries. And now, I am looking forward to meeting your

spouse again, but this time, in my hometown of South Bend at the 37th House of Delegates, April 14-16. Send her! She and you will be glad that you did. The AMA Auxiliary president, Mrs. John F. Vaughan, will be with us, giving the keynote address and installing our new officers.

Because this is my last report for THE JOURNAL, I would like to express my sincere appreciation for the courtesies extended to me as auxiliary president. My sincere thanks to you and your spouse for all you did to make this a memorable year. You have given me recognition, direction, and excellent support. You have given Herb and me a year to remember.

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An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Ceflor® (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceflor.

Contraindication: Ceflor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceflor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceflor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceflor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceflor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceflor.⁷

Ceflor®

cefclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefclor therapy are uncommon and are listed below: **Gastrointestinal** symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transient abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[1030808]

* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Ceflor® (cefclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.



Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Eli Lilly Industries, Inc. Carolina, Puerto Rico 00630

100061

FUTURE FILE

National Forum on Computers, Health

"Minicomputers and Microprocessors in Medical Practice Management" will be the subject of a workshop to be conducted by the National Forum on Computers and Health and by the Society for Computer Medicine in Philadelphia June 4-5.

To register, call (800) 336-4776. For further information, call (202) 298-8160 and ask for Mary Elizabeth. The address of the Forum is 621 Duke St., Alexandria, Va. 22314.

ENT Symposium for Family Physicians

An Ear, Nose and Throat Symposium for the Family Physician will be held July 31 through Aug. 2 at The Lodge, Vail, Colo.

The symposium has been approved for credit by the American Academy of Family Practice, the American Osteopathic Association, and the Colorado Medical Association. It is sponsored by the Associates of Otolaryngology in affiliation with the combined medical staff of Porter Memorial Hospital and Swedish Medical Center.

For details, contact Lisa Lee, 950 E. Harvard, Suite 500, Denver, Colo. 80210. Tel: (303) 744-1961.

FORT WAYNE, INDIANA— EMERGENCY DEPARTMENT PHYSICIANS

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Spina Bifida Multidisciplinary Seminar

The Children's Memorial Hospital, Chicago, will host a national multidisciplinary seminar on spina bifida Sept. 24-26.

Various internationally known specialists in orthopedics, neurosurgery, urology and pediatrics will serve as guest lecturers.

For information, contact David G. McLone, M.D., Children's Memorial Hospital, 2300 Children's Plaza, Chicago 60614. Tel: (312) 649-4373.

Workers' Compensation Conference

"Medical Determinations in Workers' Compensation" will be the subject of a conference sponsored by the American Society of Law & Medicine at the Ambassador West Hotel in Chicago May 21-22. The three body areas to be covered especially are the heart, lungs and lower back. Physicians and attorneys are invited.

Contact Executive Director, American Society of Law & Medicine, 520 Commonwealth Ave., Boston 02215.

Health Care Quality Assurance

"Quality Assurance in Patient Care—What Works?" is the subject of a Conference on Health Care Quality to be conducted at the Bond Court Hotel, Cleveland, June 22-24. It is sponsored by the Association for Healthcare Quality to which inquiries may be directed at Case Western Reserve University School of Medicine, Cleveland 44106, telephone (216) 368-3737.

ACIP Annual Convention Slated

The sixth annual convention of the American College of International Physicians will be held Aug. 20-23 at the Holiday Inn, Lake Shore Drive, Chicago.

Dr. Felix Millan of East Chicago, Ind., will be installed as president of the college. Scientific sessions will meet on three successive days during morning hours. Category 1 CME credits for 12 hours will be awarded.

High Blood Pressure Conference

The National Conference on High Blood Pressure Control will be held May 3-5 at the New York Hilton, New York City.

The basic registration fee is \$125, which includes all conference materials, a Sunday cash bar reception and an awards luncheon May 5.

For details, write the Conference at 1501 Wilson Blvd., Suite 600, Arlington, Va. 22209.

April Indiana AAPS Meeting

Dr. Robert Heimburger of the I.U. Medical Center will speak on "A View of Medicine in the Western Pacific" during a meeting of the Indiana Association of American Physicians and Surgeons Saturday, April 25.

A business meeting will convene at 4 p.m., followed by an \$8-per-plate smorgasbord dinner at 6 p.m. Dr. Heimburger, whose talk will be based on his recent sojourn of seven months in Korea and the Orient, will speak at 7 p.m.

The meeting will take place at the Heritage House Smorgasbord, 4990 U.S. 31 South, Indianapolis; it is located two blocks south of I-465. All physicians and spouses are invited, and no reservations are necessary.

Cancer Therapy Meeting in St. Louis

"Current Concepts in Cancer Therapy" is the subject of a future CME Conference at the Washington University School of Medicine in St. Louis Dec. 10-12. It is rated at 19 hours credit by AMA, the AAFP and the AOA.

Details are available from the Office of CME at the medical school, Box 8063, 660 S. Euclid, St. Louis, Mo. 63110, or by phoning (314) 454-3873.

Seminars for Office Staff

Blue Cross and Blue Shield of Indiana is offering three seminars designed to help physicians develop and maintain cost-effective office procedures. The seminars are endorsed by the Indiana State Medical Association.

The "Basic Medical Assistant's Seminar" will be conducted April 15-17 and May 20-22. It is a three-day program for employees who are new to the field or in need of refresher training. The course includes medical terminology, claim filing, collection techniques and office procedures.

The "Physician's Office Management Seminar" will be conducted April 20-24 and May 11-15. It is designed for experienced office personnel and covers credit and collection techniques, financial management, time and stress management, and BC-BS Medicare and Medicaid policies and procedures.

The "Update Seminar", for those who have attended either of the above seminars, will be conducted June 4-5. It is a refresher course, updating a variety of topics.

All classes will be held at the BC-BS Service Center, 120 W. Market St., Indianapolis. CME credits will be awarded through the American Association of Medical Assistants. For details, contact David Widdifield, Director, Tuition Education Services, BC-BS, at (317) 263-4773.

Emergency Medical Care Seminar

The 11th Annual Emergency Medical Care Seminar will be conducted by the Kentucky Medical Association June 9-11 at the Executive West Motel in Louisville. The seminar, open to physicians, nurses, EMTs and paramedics, is approved for Category 1 CME credit and for 12½ prescribed hours by the AAFP.

Registration is \$15 per day, which includes materials, coffee breaks and luncheons. Register with KMA, 3532 Ephraim McDowell Drive, Louisville 40205, Attn: Jean Wayne. Payment should accompany registration.

Evansville Seminar April 23

A half-day seminar on Technological Impacts on Patient Care will begin at 1 p.m., April 23, at St. Mary's Medical Center in Evansville.

The seminar, featuring nine guest speakers, will provide physicians with knowledge of technological advances employed by the medical profession and how their development and use have positively impacted on patient care.



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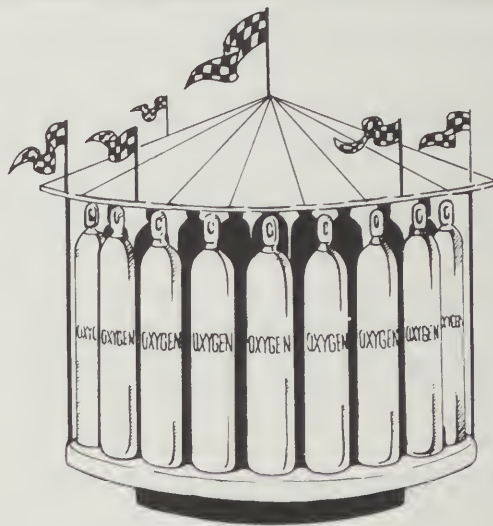
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This product is prepared from human venous plasma. Each individual unit of plasma has been found nonreactive for hepatitis B surface antigen using the radioimmunoassay method of counter-electrophoresis.

INDICATIONS

Treatment of rabies, once clinical disease becomes apparent, is rarely if ever successful. Rabies vaccine (duck-embryo origin, Lilly Laboratories) with or without Rabies Immune Globulin (Human)—Hyperab[®] should, therefore be given to all persons suspected of exposure to rabies, particularly to severe exposure. Whenever possible, Hyperab[®] globulin should be injected as promptly as possible after exposure. If initiation of treatment is delayed for any reason, however, Rabies Immune Globulin (Human) should be given just the same, regardless of the interval between exposure and treatment.

Rabies virus is usually transmitted by the bite of a rabid animal, but can occasionally penetrate abraded skin with the saliva of infected animals. Progress of the virus after exposure is believed to follow a neural pathway, and the time between exposure and clinical rabies is a function of the proximity of the bite (or abrasion) to the central nervous system and the dose of virus injected. The incubation is usually 2 to 6 weeks, but can be longer. After severe bites about the head and neck, it may be as short as 10 days.

After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies. Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized.

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO, and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

INJECTION PROCEDURE

A portion of the Hyperab[®] globulin dose should be used to infiltrate the wound. The rest is injected intramuscularly.

CONTRAINDICATIONS

Rabies Immune Globulin (Human)—Hyperab[®] is contraindicated in repeated doses, once vaccine treatment has been initiated. Repeating the dose may bring about interference with full expression of active immunity expected from the vaccine. Hyperab[®] globulin is also contraindicated in individuals who are known to have an allergic response to gamma globulin or thimerosal.

PRECAUTIONS

NEVER ADMINISTER Hyperab[®] globulin INTRAVENOUSLY.

ADVERSE REACTIONS

Slight soreness at the site of injection, and slight temperature elevation, may be noted at times. Sensitization to repeated injections of human globulin is extremely rare.

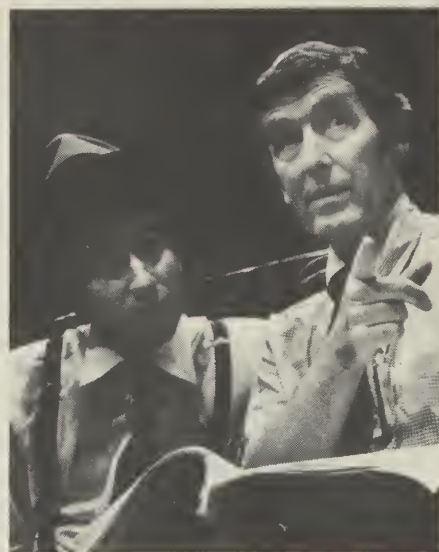
In the course of routine injections of a large number of persons with human gamma globulin, there have been a few isolated occurrences of angioneurotic edema, nephrotic syndrome, and anaphylactic shock after injection. Because of their rarity, it is difficult to determine whether such reactions are incidental, or causally related to the gamma globulin.

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Married: Four children

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NEWS NOTES

\$100,000 Awarded for FMG Meetings

The Educational Commission for Foreign Medical Graduates (ECFMG) has awarded the American College of International Physicians a grant of \$100,000 to conduct a series of FMG National Leadership Development Conferences which will be held nationwide in major cities with large concentrations of FMGs. This is in accord with the recent AMA approval of a policy to give FMGs representation in the different councils, committees and policy making bodies of the AMA.

'Biochemistry of Aging' Brochure

"Biochemistry of Aging", a brochure summarizing a 1978 workshop on age-related biochemical changes, is now available for free distribution on request. Topics include changes in the metabolism of lipids and glucose, and the effect these changes have on developing atherosclerosis and diabetes; cultured fibroblasts as a cellular model of senescence; and the ability of certain hormones to extend the *in vitro* lifespan of these cells; and the physiological consequences of age-dependent modifications in collagen metabolism. Free, single copies may be obtained by writing: NIA/Biochem, Expand Associates, 8630 Fenton St., Suite 508, Silver Spring, Md. 20910.

Voluntary Effort Failing?

The Voluntary Effort to contain hospital costs is not working, reports *Medical Economics* which says the 1980 rate of increase (through October) was 14.7%, a figure well above the 11.8% goal. The 1981 goal is lower, with VE leaders hoping for a "deceleration" in the rate; they are asking that it drop two percentage points below the 1980 rate by the end of 1982. Factors in this year's increase include salary competition to attract nurses and an unexpected rise in admission rates.

Meanwhile, the AMA's Center for Health Services Research and Development reports that physicians' fees increased only 11% from December 1979 to December 1980, while the all-items component of the CPI rose 12.4% and the all-services component increased 14.2%.

Cancer Publication Available

The American Joint Committee on Cancer announces the publication "Staging of Cancer of Head and Neck Sites and of Melanoma 1980". A copy may be obtained without charge by writing to the Committee at 55 E. Erie St., Chicago, Illinois, 60611.

LETTERS

Aspirin: Giving the Right Credit

This is in reference to the guest editorial on "Aspirin as an Anticoagulant," which appeared on p. 12 of the January 1981 issue of THE JOURNAL. It was written by Doctors Michael, Cassady and Landin of Indianapolis.

I am pleased to learn that scientific investigation of the exact *modus operandi* of aspirin in this connection is underway, but I would suggest the authors read "Acetylsalicylic Acid: Possible Preventive of Coronary Thrombosis," by Lawrence L. Craven, M.D., in *Annals of Western Medicine and Surgery*, Vol. 4, No. 2, February 1950, pages 95, 96 and 99. It will then be apparent to them that such use of aspirin dates back three decades, not just one. Therefore, let us give Dr. Craven of Glendale, Calif., a little credit.

It would be easy to check on this reference (and another similar one) in an editorial in our own journal (*J Indiana State Med Assoc*, April 1980, p. 220), but Dr. Craven's piece can be obtained through the Public Library system. I write this because I happen to be the one who commented in this journal on Dr. Craven's report—in January 1951.

A. W. Cavins, M.D.
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NEWS NOTES

Dealer Buys Medical Books

W. Bruce Fye, a dealer in antiquarian medical books, is anxious to buy pre-1920 biomedical publications. Single volumes or entire collections are purchased. Full information including a list of desired authors may be obtained by writing Mr. Fye at 1607 N. Wood Ave., Marshfield, Wisconsin, 54449.

AAP Cites Medical Radio Program

"Medical Journal," a nationwide daily radio series, has earned a first place journalism award from the American Academy of Pediatrics for contributing to improved public awareness and appreciation of child health care.

The Indiana State Medical Association has cooperated in the production of the series, produced by the Columbia-Presbyterian Medical Center of New York and The Prudential Insurance Company of America. The series is heard daily by 1.3 million adults listening to 200 major-market radio stations.

Malpractice Rate Hikes Spurned

Aggravated by Aetna premium hikes of 30 and 60%, physicians in Connecticut and Washington state may set up their own malpractice carriers, according to *Medical Economics*. M.D.s in the District of Columbia are already enrolling with their own company, formed after the Hartford raised its rates 68%. The prediction is that even smaller increases may boost business for already established doctor carriers who have held rate hikes below those of commercial companies over the last few years.

Here and There . . .

. . . **Dr. Peter P. Mayock** of Bluffton has accepted a position with the faculty of the University of Illinois School of Medicine.

. . . **Dr. John F. Moe**, president of the Marion County Heart Association, led a discussion on heart disease and its prevention at the St. Francis Hospital Center, Indianapolis, in February. The session was open to the public.

. . . **Dr. George M. Haley** has been elected president of St. Joseph's Medical Center, South Bend. **Dr. Stephen L. Anderson** was elected vice-president, and **Dr. Edward A. Gergesha**, secretary-treasurer.

. . . **Dr. James A. Hall** of Logansport has been named a diplomate of the American Board of Obstetrics and Gynecology.

. . . **Dr. Paul E. Doermann** has been elected chief of staff at Huntington Memorial Hospital. **Dr. William J. Webb** was elected vice chief of staff, and **Dr. Piyush J. Shah**, secretary-treasurer.

. . . **Dr. Otis R. Bowen**, former Governor of Indiana, has been elected to the board of directors of Hook Drugs, Inc.

. . . **Dr. Vincent C. Scuzzo** of South Bend addressed the Ostomy Chapter of St. Joseph County in February.

. . . **Dr. D. Logan Dunlap** was among the speakers at a January meeting in South Bend of the Indiana Diabetes Association.

. . . **Dr. Gerald G. Warrenner** of Fort Wayne has been appointed to the Noble County Board of Health.

. . . **Dr. Maurice V. Kahler** of Star City, 86, has retired from practice after 62 years.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Bacala, Jesus C., Scottsburg
Ball, Margaret J., Fort Wayne
Blackburn, Howard R., Noblesville
Cahn, Peter H., Indianapolis
Carey, John A., Gary
Chua, Felipe S., Munster
Cobb, Clarence M., Indianapolis
Dowell, Anthony R., Muncie
Evans, Daniel R., Valparaiso
Gabovitch, Edward R., Indianapolis
Gillim, Parvin D., Indianapolis
Gillum, Eugene M., Portland
Griffin, Charles G., Valparaiso
Hazelrigg, Donald E., Evansville

Holm, Byron M., Plymouth
Jeha, Mikhail F., Crown Point
Johnston, Gerald P., Indianapolis
Jureziz, Ronald E., South Bend
Kirby, Ted C., Greenfield
Kumar, Aron C., Princeton
Lacera, Donaldo E., Hammond
Lee, Robert Y., Valparaiso
Levin, Harvey J., Hammond
Martin, Charles F., South Bend
Mason, Lester M., Terre Haute
Morey, Edwin E., Fort Wayne
O'Brian, John F., Fort Wayne

O'Neill, Martin J., Valparaiso
Oei, Tjien O., Indianapolis
Perry, Guy F., Columbus
Pierce, William J., Crown Point
Porter, Robert A., Winchester
Price, Ambrose M., Anderson
Schalliol, James P., Rochester
Schoen, Frederic L., Indianapolis
Skiles, Melvin J., Madison
Spain, W. Thomas, Evansville
Stoody, James C., Indianapolis
Swanson, Richard T., Evansville
Van Tassel, Charles J., Indianapolis
Vannier, Frank P., Indianapolis

Here and There . . .

. . . **Dr. Douglas P. Zipes** of the Krannert Institute of Cardiology, Indianapolis, participated recently in an international symposium on "Calcium (Slow Channel) Inhibiting Drugs in Cardiovascular Therapy: Mechanism of Action and Application." A faculty of specialists from all over the world discussed the new calcium ion antagonists and their use in treatment of supraventricular arrhythmia.

. . . **Dr. Philip T. White**, a native of Anderson, Ind., and one-time professor of neurology at the I.U. School of Medicine and director of the Epilepsy Clinic at I.U., has been promoted to associate deputy chief medical director of the Veterans Administration. He will head program management for VA medical services.

. . . **Dr. James E. Simmons**, an I.U. School of Medicine faculty psychiatrist, addressed parents of children with emotional or behavioral problems during a February conference sponsored by the Marion County Mental Health Association.

. . . **Dr. Larry L. Heck** of the Nuclear Radiology Department, Methodist Hospital of Indiana, has been installed as president-elect of the American College of Nuclear Physicians.

. . . **Dr. Arthur C. Rettig** of Indianapolis has been inducted as a Fellow of the American Academy of Orthopaedic Surgeons.

. . . **Dr. Edward A. Gergesha** has been named medical director of the pediatrics intensive care unit at St. Joseph's Medical Center, South Bend.

. . . **Dr. Tatiana Eugenides**, a Highland pediatrician, discussed accident prevention and what to do until help arrives last month during a meeting at the Highland Library for mothers of pre-school children.

. . . **Dr. Ben E. Woodward** has been elected president of the medical and dental staff at St. Mary's Medical Center, Evansville. **Dr. J. Ronald Waddell** was elected vice-president, and **Dr. Mark E. Meyers**, secretary-treasurer.

. . . **Dr. G. L. Schaefer** of Franklin was among the panelists of a "Families Facing Cancer" program sponsored in February by the Johnson County unit of the American Cancer Society.

. . . **Dr. Nicholas L. Polite** has been elected president of the medical staff at St. Catherine Hospital, East Chicago. **Dr. Harry I. Shulruff** was elected secretary-treasurer. Dr. Polite is president of the Lake County Medical Society.

. . . St. Margaret Hospital, Hammond, has dedicated its medical library to the memory of **Dr. Sallie Tyrrell**, who died in 1978. She is survived by her husband, **Dr. Thomas C. Tyrrell**, a Calumet City general surgeon.

. . . **Dr. Paul L. Ramsey** has been elected president of the medical staff, Community Hospital, Anderson. **Dr. Frank Campbell** was elected chief of staff, **Dr. William K. Patterson**, vice-president, and **Dr. Thomas F. Owen**, secretary-treasurer.

. . . **Dr. B. D. Wagoner**, director of emergency medicine at Reid Memorial Hospital, Richmond, has been elected chairman of the East Central Emergency Services Council, which serves a 12-county area.

. . . **Dr. George E. Gates**, a South Bend internist, has announced that he is closing his medical practice after 41 years.

. . . **Dr. C. David Ryan** of Columbus discussed "Latest Advancements in the Treatment of Infertility" during a February meeting of Indiana RESOLVE, Inc.

. . . **Dr. Charles W. Bartholome**, a Muncie dermatologist, spoke about aging skin and **Dr. John F. Border**, a Muncie cardiologist, discussed heart disease and high blood pressure during Muncie's annual Health Seminar for Adults last month.

. . . **Dr. Neil R. Harris** of Goshen was awarded an appreciation plaque by Goshen High School in recognition of his having served 15 years as the school's team physician for all sports.

. . . **Dr. Wayne E. Hardin**, a family physician, has retired from the Ossian Medical Center after a practice spanning 41 years.

. . . **Dr. William D. Deupree** has been certified as Shelby County health officer by the executive board of the Indiana State Board of Health.

CME Quiz . . .

CONTINUED FROM PAGE 235

- c. The patient is probably inoperable since he now has at least two lesions, in the right main stem bronchus and in the periphery of the right lower lobe.
 - d. All eighteen segmental bronchial orifices should be biopsied to search for additional occult lesions.
9. A transcutaneous needle aspiration of the 2 cm right lower lobe nodule
 - a. Is probably futile because the lesion is too small.
 - b. Should be considered early since it can be done in the physician's office as an outpatient procedure.
 - c. Will have a high diagnostic yield if the lesion is malignant and the procedure done under fluoroscopy.
 - d. Will be associated with less than a 5% risk of pneumothorax.
 10. A patient with lymphoma on chemotherapy develops fever and progressive pulmonary infiltrates and a cavitary lesion with an air fluid level.
 - a. An early morning expectorated sputa should be cultured for aerobic and anaerobic bacteria.
 - b. Fiberoptic bronchoscopy with transbronchial biopsy and/or sterile brush culture might aid in the diagnosis.
 - c. Transcutaneous needle aspiration with smears, special stains and cultures might aid in the diagnosis.
 - d. B and c.

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DIRECTOR OF CONTINUING MEDICAL EDUCATION—Methodist Hospital, Indianapolis, Ind., is seeking a full time Board Certified physician to direct its program in Continuing Medical Education. Ideal candidate will have background and experience in education and knowledge of and interest in the computer as an educational tool. This position offers an outstanding opportunity for the right person. Salary commensurate with experience and background. Reply in confidence with C.V. to Edward M. Hackman, Ph.D., Associate Director of Medical Education, 1604 N. Capitol, Indianapolis, Ind. 46202. An Equal Opportunity Employer.

EMERGENCY DEPARTMENT positions available throughout the United States, either on a full-time or locum tenens basis. Choice locations, scheduled hours, competitive salaries, excellent benefits including malpractice insurance. We're on the move, come grow with us. Contact ECI, Recruiting Division, Suite 121, 2240 S. Airport Road, Traverse City, Mich. 49684. Call 1-800-253-1795, out-of-state, in Michigan 1-800-632-3496.

CALIFORNIA—DIRECTOR POSITIONS AVAILABLE. Emergency medicine physicians needed for rural northern California areas. Excellent opportunity to join growing partnership of career emergency physicians. Emergency medical residency, Board Certification or at least two years experience required. Excellent benefit package and profit sharing. Contact Judy Neal, California Emergency Physicians, 440 Grand Ave., Suite 500, Oakland, Calif. 94610, (415) 832-6400.

EMERGENCY MEDICINE Directorship: Indiana—just 50 miles south of Chicago. Moderate volume, well-equipped emergency department in service area of 150,000+. Excellent pay with added compensation for Director's responsibilities. Paid professional liability insurance; flexible scheduling without on-call involvement. For details call Frank Siano toll-free at 1-800-325-3982 or send credentials in confidence to 970 Executive Parkway, St. Louis, Mo. 63141.

FAMILY PHYSICIAN entering teaching, has excellent office facilities for lease, in north suburban Fort Wayne (metropolitan area of 300,000). Office has 1,800 sq. ft.; waiting room, tastefully decorated; five examination rooms (10x12); consultation room/office; laboratory/drug room; nurse's lounge. Adjacent to pharmacy. Could be expanded to accommodate two physicians. No other physician in area! Would probably have many patients remain with practice. Fifteen minutes from excellent 700-bed hospital. All specialties and subspecialties available for consultation; an excellent medical community. Will lease or sell medical equipment. Contact R. B. Juergens, M.D., (219) 489-3530 or 1724 Prairie Lane, Fort Wayne, Ind. 46818.

EMERGENCY MEDICINE—TERRE HAUTE: Directorship opportunity available 7-1-81 in modern, moderate volume trauma center with excellent specialty and subspecialty support. This metropolitan community offers many educational, recreational, and cultural amenities. Annual minimum guarantee plus production based bonus (i.e., fee-for-service). Paid professional liability insurance, flexible scheduling with no on-call involvement. For details, send credentials in confidence to John Kutchback, 970 Executive Parkway, St. Louis, Mo. 63141 or call toll-free 1-800-325-3982.

VACATION HOMES FOR SALE—Two and three bedroom condominium vacation homes at The Pointe on Lake Monroe, a luxurious golfing community south of Bloomington. Excellent long or short term rental potential. May be purchased furnished or unfurnished. Low 40s to 70s. Call Belva Wilson at Owens, Bryan and Reed, Realtors, (812) 336-6888 or (812) 334-3194.

EMERGENCY MEDICINE position available: Emergency Physician to join professional group practicing in superior emergency department in Hammond, Indiana. Contact Dr. Robert F. Guthrie at (312) 474-0014 or Emergency Care, S.C. at (312) 327-0777.

FOR LEASE: Office adjacent to hospital in growing medical community. Additions to 350-bed hospital and mental health unit now under construction. Vincennes, Indiana. Address inquiries to N. M. Welch, M.D., Rte 3, Box 17, Vincennes, Ind. 47591.

FULLY EQUIPPED medical building for sale or rent. Located in Bunker Hill, Ind., near Kokomo. Address all inquiries to Ruben R. Gaboya, Estate, Box 577, Bunker Hill, Ind. 46914.

SOUTH BEND—Active family practice available. Well equipped, modern office, staffed by efficient personnel. 1980 gross income: \$122,000. Favorable financial arrangements. Write or call collect Max Feldman, M.D., 1921 Miami St., South Bend, Ind. 46613. Tel: (219) 289-6800.

FOR SALE—CHICAGO Gold Coast John Hancock condo. 3 blocks Northwestern Hospital and University; also easy access other universities and hospitals. Buses one-half block away; walk to Loop and financial district; excellent shopping, restaurants, etc. Many high caliber professional and corporate executive unit owners who demand the finest in condo living. Excellent in-town residence. Amenities included in assessment: large all year indoor pool, saunas, exercise rooms, eliminates outside health club membership. Laundry rooms, bicycle rooms, own private storage locker on apartment floor. Access within bldg. to garage, office complex, shops and bank. Main 44th floor Sky Lobby has commissary, private restaurant for unit owners and guests; Receiving Room, Valet shop and party room. Beautiful large one bedroom on 76th floor unobstructed view Lake Michigan; eat-in kitchen, 2 huge walk-in closets, linen closet; levelor blinds and sheer draw curtains, unusual parquet floors. Monthly assessment \$174. annual taxes below \$800 for 1980. Price \$150,000. Private owner relocating. Call after 5 p.m. 312/664-4665.

FOR VACATION RENTAL: 1,500 sq ft luxury townhouse close to ocean, swimming, tennis, golf; in Palmetto Dunes, Hilton Head Island, S.C. \$400 per week, accommodates six. Phone (812) 275-2800.

LAST CALL . . .

Your subscription to **THE JOURNAL** expires with this issue if you have not yet paid your 1981 ISMA membership dues. Questions? Call 1-800-382-1721.

WHAT'S NEW?

CONTINUED FROM PAGE 196

SIENCO has a simple-to-operate, hand-sized instrument which enables physicians to determine in 60 seconds a patient's capillary fragility in a non-invasive, atraumatic method. The Sienco Petechiometer helps screen patients with bleeding disorders. It uses a one sq. cm. vacuum cup to apply a measured negative pressure for 60 seconds. Petechiae are counted after 60 seconds. A count of zero to 12 petechiae is normal. The test may be performed with half the standard vacuum. Persons with normal vessels will have no petechiae with the lesser vacuum.

JOHNSON & JOHNSON has introduced **RELEASE™** Non-Adhering Dressing, designed specifically for scant-to-lightly draining wounds. The dressing offers excellent absorbency, superior wound release, comfort, conformability and porosity.

MEDEC announces the release of its latest Patient Education Video Program on Low Back Pain. This 10-minute, full-color video program covers back anatomy, posture, body mechanics, and the basic steps used during the management of low back pain. The program is available in 3/4-inch, VHS and Beta formats.

BURROUGHS CORPORATION offers a Write-it-Once® accounting system for physicians. One writing creates a charge ticket, updates the patient's statement and ledger card, posts the daily record of charges and receipts, and prepares a bank deposit ticket. The statement form aligns exactly to position the name and address in window envelopes. All forms are carbonless and produce clear copies.

DOUBLEDAY has released *A Miracle to Believe In* by Barry Neil Kaufman. It is an account of the author's family experience in the treatment and cure of first, a Mexican boy originally diagnosed as hopeless, and later the author's own son equally "incurable." The Kaufman's handling of the difficult cases was unconventional, time-consuming and protracted, yet marvelously successful. 336 pages, \$12.95.

ST. MARTIN'S PRESS has released *Born at Risk*, a dramatic true story of an intensive care nursery. The author is journalist B. D. Colen, well known for many first class medical writings. The book has attained many complimentary reviews by prominent physicians. \$9.95.

ALMAR PRESS announces a book written to help parents improve their relationship with their children, *How to Live With Your Children*. The author, Don H. Fontenelle, Ph.D., is director of a parent training project in Louisiana and director of the UCLA Medical School Parent Training Programs. 280 pages, \$9.95.

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BactrimTM (trimethoprim and sulfamethoxazole) succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
effective against both major otic pathogens...with b.i.d. convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume...on b.i.d. dosage

in shigellosis...
faster relief of diarrhea than with ampicillin²

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonia. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β -hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: General: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema

multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness.

Miscellaneous reactions: Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 tsp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 tsp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose[®] packages of 100; Prescription Paks of 20 and 28. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose[®] packages of 100; Prescription Paks of 40. Pediatric Suspension, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). Suspension, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

BactrimTM succeeds

in recurrent urinary tract infections*



from site to source

Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue¹...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations¹... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae^{1,2} with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. 2. Data on file, Medical Department, Hoffmann-La Roche Inc.

BactrimTM DS

160 mg trimethoprim and 800 mg sulfamethoxazole

DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience



* due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

0731L

May 1981 • Vol. 74 • No. 5

The JOURNAL

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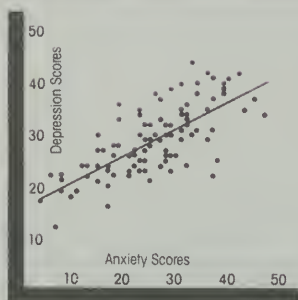
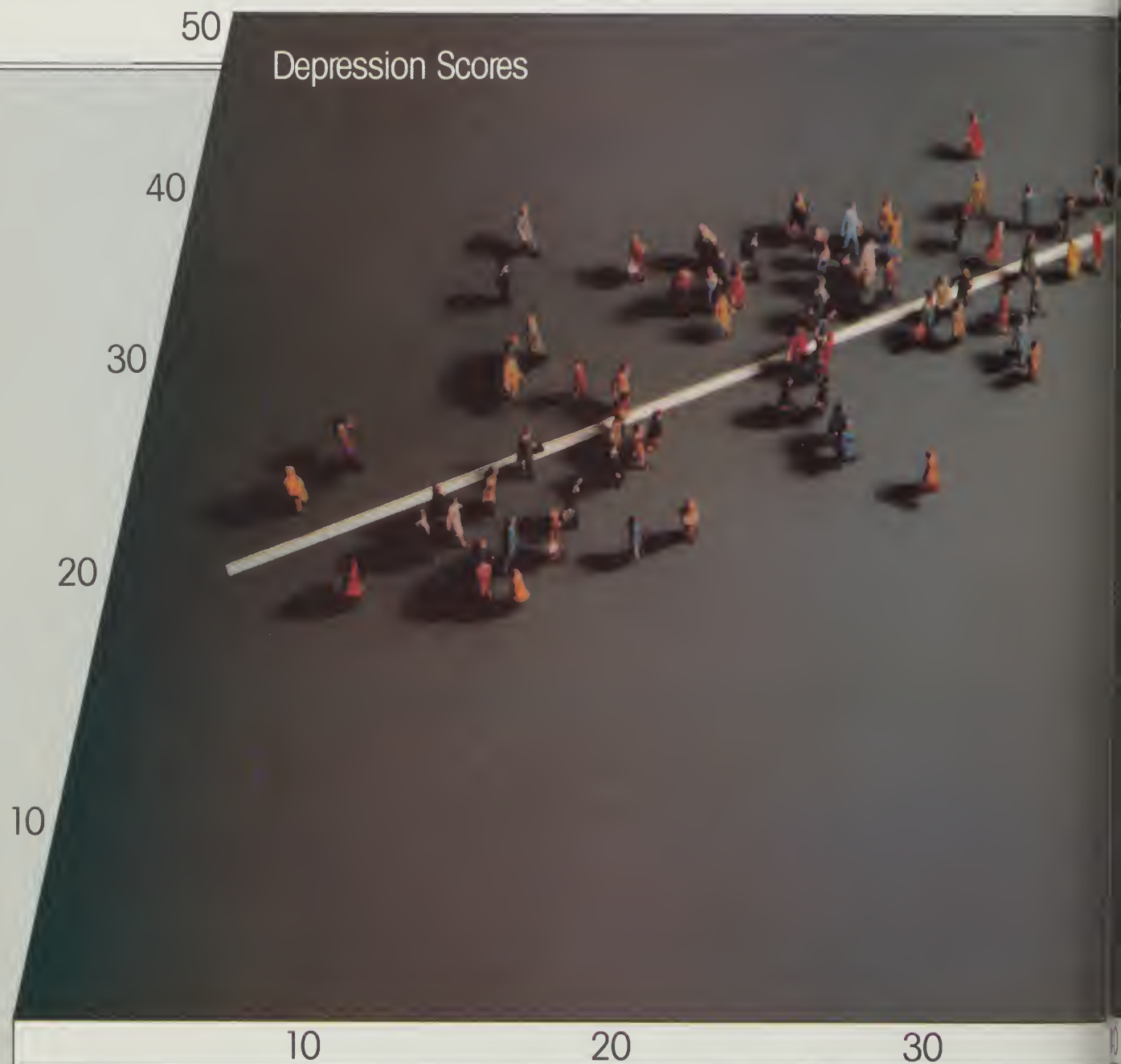


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FRONT LINE SURGEON

FOR THE 7 OF 10 NONPSYCHOTIC



Clear correlation between anxiety and depression³

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

³Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics* 11:438-441, Sept-Oct 1970.

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS^{1,2}

Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.^{1,2} One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.³ As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.⁴ Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.⁵ Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jarvik ME. New York, Appleton-Century-Crafts, 1977, p 316. 2. Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry* 35:1359-1365, 1978. 3. Claghorn J: The anxiety-depression syndrome. *Psychosomatics* 11:438-441, 1970. 4. The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry* 137:1163-1172, 1980. 5. Feighner JP et al: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology* 61:217-225, 1979.

Anxiety Scores

50

In moderate depression and anxiety

Limbitrol®^{IV}

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquillizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses.) Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extropyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

WHAT'S NEW?

PROCTER & GAMBLE announce Advanced Formula Crest Toothpaste. The new formulation, on clinical testing, has demonstrated a success rate of 41% fewer cavities as compared with the 23% fewer cavities of the original Crest. Both formulas were the result of research by Indiana University School of Dentistry. The Ohio State University College of Dentistry contributed to the improved formula, which penetrates the tooth surface with more active fluoride.

SEARLE announces FDA approval to include a single daily dose recommendation in the labeling for Aldactone and Aldactazide. The new schedule will allow for more conformity in hypertensive patients who may be destined to take the medication over a long period of time, and inevitably tend to forget some of the divided doses when on a multiple daily dose schedule.

ACCU-BACK, INC. is introducing a new orthopedic back support, the Accu-Back Economy Model No. 3000. It is small enough and light enough to carry anywhere. It will fit and adhere to the back of a chair or seat, at home, in the office, in the auto and on an airplane seat. It may be set higher or lower according to the individual. It is covered with velour and comes in four designer colors.

NUTRITION SERVICES of Columbus, Ohio publishes "Short Report"™ Computerized Diet and Energy Analysis program which serves as an evaluation tool for the health professional and as a nutrition education guide for the individual. Basic data related to food consumption and physical activity are entered on special forms for computer analysis; printouts then are sent to the physician to provide a detailed breakdown of nutrient intake with comparisons with the ideal intake.

THE 3M COMPANY introduces an incise adhesive drape with iodophor incorporated in the adhesive for long-term release of antimicrobial iodine releasing compound. The device has been found to be effective against gram positive and gram negative bacteria, aerobes, anaerobes, facultative anaerobes, yeasts and molds. *In vivo* testing shows the drape is non-irritating and non-sensitizing. It is available in four sizes.

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News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.



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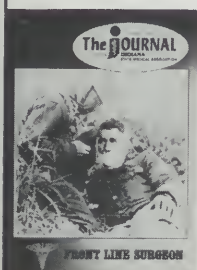
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ABOUT THE COVER

The cover depicts emergency medical treatment on the front lines during World War I. Then-Captain Charles W. Myers, M.D., now retired and living in Carmel, Indiana, was one of the physicians who risked his life several times to save the lives of others. His story, "Front Line Surgeon," appears in this issue. PHOTO COURTESY OF U.S. ARMY MILITARY HISTORY INSTITUTE.



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EDITORIALS

The Patent Life of Drugs

The head start over competitors provided by a patent is extremely necessary in the case of drugs. The discoverer and developer of a newly invented drug utilizes a portion of the patent life of the new drug to recover the research and development expenses. Research funds are thus restored for future research. The innovator is limited by the marketplace in such a case and cannot overprice the drug and thereby deny its use to patients.

Each new drug entity must, as a matter of practicality, be patented before clinical research is commenced as a part of the premarket testing which is necessary to prove "safety and effectiveness."

In recent years the cost of innovation and premarket testing has increased dramatically and the length of time involved has also increased to the same extent. Senator Mathias of Maryland expressed the dilemma thusly: "Under current law, the Government grants a 17-year patent and then prohibits the product from being marketed until all tests are completed. During this time, the life of the patent is ticking away, often for many years."

Shortening the part of the patent life of a drug in which it may be marketed opposes the formation of a research fund with which to discover and develop the next great drug. This vicious process is one of the significant causes of the present slowdown in origination of new drugs in the U.S.

Senator Mathias has introduced "The Patent Term Restoration Act of 1981." It would "amend the patent

law to restore the term of a patent grant for the period of time that regulatory requirements prevent the marketing of a patented product." The law, if enacted, will apply to all patents, and will restore equity in the patent system which has, for a very long time, been the vehicle for the system which rewards ingenuity.

However, in the pharmaceutical field, it will do more than this. It will aid in restoring the financial backing of U.S. drug innovation which was the pride of the entire world for many years. It will help to open up the research effort into an incalculable and unimaginable store of life-enhancing and life-saving drugs of the future.

BC/BS Investigation Efforts

Fraud and abuse of the intentional variety and clerical errors due to inexperience are all inevitable in a medical care insurance system. Insurance carriers are obligated to detect and prevent fraudulent claims against policies owned by individuals and against those instruments that provide benefits through programs such as Medicaid and Medicare.

Blue Cross and Blue Shield of Indiana has a special unit that investigates situations which might indicate improper provider practices and questionable filings by patients. The main purpose of the unit is to educate providers and patients, as well as to correct any problems within the BC/BS claims processing system.

Investigations are conducted as discretely as possible. Undue publicity is avoided. The purpose is to find

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problems and take the most appropriate measures to correct them.

The unit exerts its principal efforts toward education in regard to utilization and payment of claims. It also functions in gathering evidence and making recommendations for criminal or civil prosecution.

The cases investigated are all complaint-related. Complaints arise from providers, patients, accountants, enforcement agencies and from routine reviews or audits. Last year, outside complaints accounted for two-thirds of the cases and internal audits the other third.

While the Investigation Unit is small when compared to the entire organization, it is one of the best trained. Qualified investigators are hired and then extensively trained for the special tasks. The special training requires about 90 days.

The training course is made available to other BC/BS plans over the nation. Thirty other plans have sent some 65 persons to Indiana for investigatory training.

An average of from five to six complaints are received each week—most complaints prove to be invalid. Of the remainder, many prove to be susceptible to educational handling. Those that require correctional measures are dealt with externally. Education, however, is one of the most effective ways to hold down health care costs.

The Unit's experience shows that physicians and other providers of health care in Indiana are doing an admirable job of serving their patients at a reasonable cost, and that the health care system in the state, on balance, has a great deal of integrity.

Medical Education Advertisements

Reader's Digest is publicizing a series of public education advertisements sponsored by Hoffmann-La Roche that have appeared in *Reader's Digest*, *Newsweek* and *TV Guide*.

The messages deal with the proper use of medication and cover such subjects as the need for caution in the ingestion of alcohol with certain drugs. Other subjects include taking prescription medicine prescribed for someone else; the wisdom of taking an entire prescribed drug series and not stopping the medicine because symptoms are relieved; and the beneficial habit of always relating to the doctor the identity of all medications presently being taken, both prescription and OTC.

Roche Laboratories, which prepares the series, titles it "Medication Education." It appears, not only in print, but also on radio and television. The "education" was intended, in the main, for the ever expanding segment of elderly patients, but should benefit all age groups. There is no such thing as being too careful with drugs.

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Caution: Federal law prohibits dispensing without prescription.

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Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: **General:** Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Dosage and Administration:

Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

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NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories—boxes of 12

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EDITORIALS

The Federal Threat to Private Enterprise

Federal regulation is the leading growth industry today. It threatens many forms of private enterprise—including the ability of physicians to practice good medicine.

Almost every year the total of regulatory proposals and decrees has increased. This is reflected in the Federal Register, a mere 9,500 pages back in 1950, 61,000 in 1978 and 77,000 pages last year. Projected total this year: 84,000—and health care regulations constitute a major portion of this total.

One reason is that the federal government's share of the health care expense nationwide is approaching 25%.

Another reason comes from the late author, Michael J. Halberstam, M.D.: "There's a mindset in the regulatory agencies that suggests physicians are incapable of determining what's best for the patient."

A third (and very current) reason is that regulation is seen as a substitute for various health legislation that Congress spawned.

Federal regulation does nothing to improve the quality of medical care for the patient. To the contrary, it limits the care and increases the cost.

A quick look at some of the new rules and proposals from different agencies, mainly the Health Care Financing Administration, documents that fact.

The Voluntary Effort has saved Indiana residents an estimated \$59 million in health care costs during the past two years. And a savings of \$4 billion in medical and hospital costs has been achieved nationally. Hopefully, President Ronald Reagan, who supports the Voluntary Effort, will tighten the belt on federal regulation, allowing business to grow and physicians to once again determine what's best for the patient.

FDA Admits Fabrications Concerning Saccharin's Safety

An apparent change of FDA policy has coincided with the change in national administration. In June 1980, FDA published a letter purportedly written by the commissioner to a 12-year-old boy, a saccharin user, who had written to FDA expressing worries about saccharin use. The letter which had triggered the incident was actually written by a 20-year-old girl, but for various reasons was attributed to the 12-year-old and was answered at the 12-year-old level.

In February 1981, FDA sources acknowledge that portions of the original letter were fabrications, and that changing the name and age of the letter-writer was a mistake. The commissioner now states that his characterization of the soft drink industry was "perhaps harsher than necessary."

FDA now also acknowledges that the results of a Canadian rate study on saccharin, as detailed in the commissioner's letter to the "little boy," were mischaracterized. And that a reference to proposed regulatory actions was improper.

Publication by the FDA of the original exchange of letters has naturally caused quite a bit of reaction on the part of the Calorie Control Council, an association of manufacturers and suppliers of dietary foods and beverages. The incident was also "viewed with alarm" by the *Wall Street Journal*.

The American Council on Science and Health (ACSH) has been interested in the matter. A letter, written by the ACSH executive director, Elizabeth M. Whelan, has been published by the FDA. It fairly well summarizes details of the above noticed incident and also reviews, with scientific impartiality, the various clinical and experimental facts about artificial sweeteners and saccharin in particular.

Ms. Whelan states the policy of the ACSH as being devoted to the principle that the finding of saccharin as a weak carcinogen and the lack of any clinical connection between its use in humans and malignancy actually removes it from the concern of the government and places the concern with each potential user who should be informed as to the evidence or lack of it and who should be allowed to decide for himself or herself.

The full report is contained in the February 1981 issue of the *FDA Consumer* magazine.

LETTERS

Familial Ovarian Cancer Study

We have noticed a perceived increase in the incidence of cases of familial ovarian cancer.

A registry for the collation of cases of familial ovarian cancer has been established at Roswell Park Memorial Institute to evaluate:

- The type of inheritance to assist physicians with genetic counseling,
- The relationship to breast and endometrial carcinoma,
- The relationship to environmental, geographical and racial factors, and
- The histopathology of familial cases.

Please address inquiries regarding the clinical history of any family with two or more members with ovarian cancer to Familial Ovarian Cancer Registry, M. Steven Piver, M.D., Roswell Park Memorial Institute, New York State Dept. of Health, 666 Elm St., Buffalo, N.Y. 14263. Tel: (716) 845-3110.

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MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis

St. Vincent Hospital in Indianapolis is now 100 years old—a century of progress and achievement for the Sisters of Charity who started the institution with four beds in a little building at Vermont and Michigan Streets.

The hospital was moved to the corner of South and Delaware Streets (1888), then to Fall Creek Boulevard (1913), and, recently, to the far north side on West 86th Street (1974).

Pictured here is the clinic of Dr. John Oliver at St. Vincent's at the South and Delaware Streets location. The year is 1907. (Dr. Oliver, in white and wearing rubber gloves, is facing the patient.) Dr. Oliver, president of the ISMA in 1917, succeeded Dr. Marsee as Professor of Clinical Surgery at the Medical College of Indiana after Dr. Marsee's death. St. Vincent's then, as now, was an important part of Indiana's medical education program.

Dr. Oliver was born at Clermont, Indiana, in 1859. At the age of 16 he served as assistant to Dr. David Starr Jordan on a tour through the southern states to complete a bird study for the Smithsonian Institute. Dr. Oliver received the M.D. degree from the Medical College of Indiana in 1881, then served as intern and later as superintendent (1887-1891) of City Hospital (now Wishard Memorial).

Dr. Oliver and St. Vincent's made local news in 1902 when President Theodore Roosevelt, passing through Indiana on a tour to the West, required leg surgery for an old injury that was acting up. Dr. Oliver was the surgeon and St. Vincent's was the place.

The hospital made bolder headlines on April 17, 1904, when a fire broke out at about 3 a.m. The fire teams at that time were horse drawn. There was no immediate response to the alarm for St. Vincent's because all of the fire compa-



nies were at another downtown conflagration that had developed earlier at the Occidental Hotel. The horses were described as "spent" when they finally arrived at the hospital. Meanwhile, two physicians, G. E. Cook and L. A. E. Storch, were busy in surgery with an emergency. Dr. Storch left the surgery long enough to discover the cause of the commotion. He saw the fire, turned on the alarm, then returned to the surgery and completed his case.

A patient who had had surgery several days earlier was the hero of the day. James Dawson of Frankfort, Indiana, arose from his bed, organized the nurses, and directed the evacuation of the patients. The fire was attributed to spontaneous combustion.

The old South Street location was the scene of yet another exciting incident due to fire, in 1908. The fire occurred not in St. Vincent's but rather in the building of its next-door neighbor, less than a hundred feet away, the Prest-O-Life Company. Prest-O-Life man-

ufactured acetylene gas, which was stored in tanks for use in the automobiles of the time to provide illumination at night. Prest-O-Life had been plagued by fires, this being the third and most devastating within a year. The plant was in operation on that fateful day, June 6, 1908, when an explosion occurred that could be heard throughout the city.

Following this occurrence Carl Fisher, owner of Prest-O-Life, moved his factory to the western outskirts of the city and constructed a two-and-a-half mile oval race track near-by. This is now the Indianapolis Motor Speedway.

Ultimately, St. Vincent's also moved, and then in due time, moved again. In its century of progress it has grown from a four-bed to over a 500-bed capacity; and during this time it has always had its Drs. Marsee, Oliver, and a host of others, providing medical care for the patients and medical education for the staff and students.

The Sisters of Charity and St. Vincent Hospital merit a mark of excellence for their first 100 years.

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Malpractice Act Again Held Constitutional

Court Action

The Indiana Medical Malpractice Act, declared constitutional last year by the Indiana Supreme Court, has again been declared constitutional, this time by the Indiana Court of Appeals. (The Indiana Supreme Court ruled the Act constitutional May 16, 1980, in *Johnson v. St. Vincent's Hospital, Inc.*, 404 N.E.2d 585.)

A patient filed suit against three physicians and three hospitals for alleged negligence causing her personal injuries. Her parents sought damages for loss of services of their daughter and for her medical expenses.

At the time of the filing of the malpractice suit, the patient and her parents had filed a copy of the proposed complaint with the commissioner of insurance as required by the Malpractice Act. No medical review panel was ever convened and no

written opinion was rendered on the claim.

A trial court granted summary judgment for the health care providers on the ground that a medical review panel had to render a written opinion before a court had jurisdiction to hear the case.

Affirming the decision, the appellate court concluded that the Malpractice Act was not unconstitutional. All persons having causes of action for malpractice were subject to and must comply with the Act, the court said.

The Act was ambiguous and unclear on whether parents' actions for loss of services of a minor child and for medical expenses were subject to the Act, the court said. The court viewed the Act from a historical perspective and determined that the parents' action was subject to the Act.—*Sue Yee Lee v. Lafayette Home Hospital, Inc.*, 410 N.E.2d 1319 (Ind. Ct. of App., Sept. 29, 1980)

Courtesy of *The Citation*, March 1, 1981.



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Physicians' Directory: A Referral Service Gone Haywire

Editorial

ONLY 41 OF ISMA'S 5,493 physicians are financially supporting publication of *THE JOURNAL* by purchasing listings in the "Physicians' Directory" section. At the risk of sounding antagonistic, we are curious as to why more than 99% of Indiana's practicing physicians choose not to have their name and specialties published in a reputable directory contained between the covers of Indiana's only state medical journal.

This is an old problem. Back in 1908, when *THE JOURNAL* was born, the names of 38 physicians appeared in the directory—at a time when we had only 2,455 members. Nevertheless, the percentage of participation even then—1.55%—was pitifully low. The names of Goethe Link, William N. Wishard and a dozen others who have contributed to Indiana's medical history have graced the Physicians' Directory pages over the years.

Surely, the reason so few physicians participate cannot be blamed on expense. The average 1x3½-inch listing costs only \$120 per year—that's just \$10 per month. There were times—from the Twenties through the Fifties—that *THE JOURNAL* devoted an average of 10 pages in every issue to Physicians' Directory. Today we're lucky to carry two or three pages. And in these times of rapidly increasing production costs, that hurts.

Most of the state medical journals in the United States do not feature a Physicians' Directory. Although the reasons vary, an important fact is that, in at least 34 states, specific legal restrictions on advertising or solicitation of patients exist in the medical licensure laws. But at least four other states feature these directories: Texas, Oklahoma, Arkansas and Iowa.

The Journal of the Arkansas Medical Society has had phenomenal success. It publishes 20 pages of listings, which represent nearly 22% of its entire membership. And *The Journal of the Oklahoma State Medical Association* publishes about 10 pages in every issue, representing more than 10% of its membership. *Texas Medicine* lists more than 350 physicians (2.1% of the membership), and *The Journal of the Iowa Medical Society* lists 85 physicians (2.9% of its membership).

The AMA Principles of Medical Ethics do not prohibit physicians from advertising their services. In the late 1970s the FTC charged the AMA with restraint of physician advertising, a ruling that was bitterly denied by the AMA. Although some physicians may consider advertising in the lay press unethical, no such "moral restriction" exists for advertising their specialty in publications such as state medical journals whose target audience is composed of their own colleagues.

In reaffirming its long-standing policy on advertising and solicitation by physicians, the AMA Judicial Council emphasized that the Principles of Medical Ethics do not prohibit advertising; they prohibit the solicitation of patients. This is a stand endorsed by the ISMA.

The revised Principles say only that physicians should "strive to expose those physicians deficient in character or competence, or who engage in fraud or deception." But they also state that a physician shall "make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated."

Arranging to have your name, specialty, board certification information, office hours, address and telephone number appear in the Physicians' Directory hardly violates any professional standards or ethics—and it provides other medical practitioners in Indiana with a handy means of making referrals or seeking consultations.

The AMA Judicial Council has ruled—and again the ISMA has endorsed the opinion—that "a physician may give biographical and other relevant data for listing in a reputable directory." And that's exactly what the Physicians' Directory is: Reputable! Its contents are not false, misleading or deceptive.

Dr. Albert E. Bulson, Jr., the first editor of *THE JOURNAL*, wrote, "THE JOURNAL is owned by the members of the Indiana State Medical Association, and in a very large measure its success depends upon the support the members of the Association give it." He penned those words for the Dec. 15, 1908 issue. Seventy-four years later, we can't find fault with his assessment. . . .

DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.; Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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FRONT LINE SURGEON



COL. WILLIAM J. MYERS, JR.
U.S. Army, Retired
Carlisle, Pa.

Reprinted by permission from the July 1979 issue of *The Retired Officer* magazine.

Colonel Myers is a nephew of Charles W. Myers, M.D., a highly decorated World War I Indiana surgeon about whom this article was written. The author served in the Army as a hospital administrator and, after his retirement in 1972, was executive vice-president and administrator of Doctors Hospital, Washington, D.C. He also was a faculty member and Preceptor for Health Care Administration residents, George Washington University.

THE ATTACK which was ordered for the next day, July 1, was to be made by two battalions, directed north-northwest.

The 2nd Battalion was to move from its present position, on a front of 800 yards, against Vaux and the eastern extremity of the Bois de la Roche. The support plan included a 12-hour artillery preparation. The total ammunition expenditure was to be 21,000 rounds light and 7,600 rounds heavy. The battalion commander put two companies in line, one in support and one in reserve. The leading companies were to follow the barrage to the objective and consolidate the position there with the assistance of engineers. The support company was to clean up Vaux and prepare for defense.

The time of the attack was fixed

at 1800 hours. Artillery preparation began at 0500 and reached maximum intensity at 1700 hours when the infantry assumed the attack formation. At 1757 hours, the rolling barrage fell and at 1800 hours, the infantry began to move forward. The artillery had done its job well and had driven the enemy to cover. Within an hour after the barrage was placed beyond the objective, all Germans remaining within it were either killed or captured. The Americans were digging in on the line as planned.

This battle took place in 1918 during the first large-scale foreign conflict in which the U.S. was involved. This is the story of one veteran of that war, a man cited for valor five times within five months. He won the Distinguished Service

Cross during his first 24 hours in combat and then went on to win two Silver Stars, the Croix de Guerre with Palm and the Croix de Guerre with Star. His survival was nothing short of miraculous. He never killed an enemy soldier or fired a shot in anger, because his job was to treat the wounded; and this he did with unusual skill and courage.

Charles W. Myers, M.D., was born in a farming community in Perry County, Pa., not far from the state capital, Harrisburg. He received his primary education in a one-room schoolhouse typical of the times. At age 16 he was a school teacher, but he longed to be a physician. He, therefore, embarked upon a program of self-study which he hoped would gain him admission to medical school. In 1915 he graduated from the Baltimore Medical College with a scholastic average of over 99 per cent. When the U.S. entered the war in April 1917, he was a physician for a coal company in West Virginia. He joined the Army a year later and on April 18, 1918, was at Camp Greenleaf, Fort Oglethorpe, Ga., taking his basic training. One month later he was on his way to France to join the 2nd Division.

On June 30, after only two months in the Army and barely four weeks of training, 1Lt Charles W. Myers, Medical Corps, reported to the 9th Infantry, which was then in the line about 200 yards south of the town of Vaux. He was assigned to the 2nd Battalion and within two hours set out for his dressing station in the village of Monneaux.

When he arrived, the village was under heavy artillery fire, but he managed to find the aid station which had been established in a wine cellar. There was no time for getting acquainted since his services were desperately needed to treat the wounded. By 10 that night, the bombardment had subsided and

the stream of casualties slowed to a trickle. Word came that there were a large number of wounded on the front urgently in need of his care. The newly assigned medical officer assembled litter bearers and set out for the front lines. He groped through the shell holes and barbed wire, homing in on the cries for



Captain Charles W. Myers, M.D., U.S. Army Medical Corps.

PHOTO COURTESY OF THE AUTHOR

help. As he moved from soldier to soldier he could think only of reaching as many wounded as possible, and was oblivious of his direction of travel. He was lost in the no-man's-land between the lines, but he continued working and, somehow, made his way back to the American position.

Charlie Myers had only a few hours of rest before he was awakened by the American artillery barrage, which began at 0500 hours in preparation for the Allied attack that afternoon. He began making his plans for medical support.

When the infantry began its attack, instead of remaining behind at the aid station in Monneaux, Lieutenant Myers moved out with the first wave and established an ad-

vance dressing station manned by himself and two enlisted men. The German counter-barrage and machine gun fire rained down upon them, but they continued to work. Machine gun bullets tore through the surgeon's uniform and a shell fragment pierced his helmet, but he managed to escape without a scratch. When the American position had been secured and the shelling stopped, the results of his efforts became evident. Without his advance dressing station and his early treatment of casualties, scores of lives would have been lost. The country doctor slept in a shell hole that night with the chaplain as his companion. When he awoke in the morning, he found a shell fragment about two feet long protruding from the earth between them.

Lieutenant Myers received the Distinguished Service Cross and the Silver Star for his actions. He also received a mild admonition not to expose himself to direct enemy fire as he had done in no-man's-land the previous night. "Hell," he said, "they thought I was brave, but I was lost."

That day the lieutenant learned that the Germans had evacuated their dressing station on the crest of a hill. It was beautifully calm and quiet, almost as if the war were over, so he decided to investigate to see if the abandoned station would be suitable for his own use. He found it satisfactory and was casually strolling back down the slope, when he heard a strange sound not unlike the singing of a bird. Being a farm boy, he was curious and thought that perhaps it was the call of a bird native to France. He noticed a soldier slowly creeping down a gully and stopped him to ask if he recognized the bird. "I believe, sir," the soldier said, "that is the sound of a sniper shooting at the lieutenant." The lieutenant jumped into the gully and followed the soldier down the hill.



Captain Charles W. Myers, M.D. (front row, center) with fellow medical officers in Bendorf, Germany—1919.

PHOTO COURTESY OF THE AUTHOR

On to Soissons

There was no rest after the battle of Vaux, for the 9th Infantry moved on to the Soissons sector for a surprise attack on the Germans. The infantry, out of the trenches now, assembled in the woods waiting to jump off the following morning. Lieutenant Myers spent the night with Maj Arthur E. Bouton, the battalion commander. They talked about the war and whether they would survive. At H-hour, the attack began with Major Bouton in the lead. The surgeon followed him as he advanced up the hill in the face of enemy machine gun and artillery fire. As the major stumbled and fell, the doctor ran to his side. There was nothing he could do for him, for his throat had been cut by

a piece of shrapnel and he was dead.

The battle of Soissons was the bloodiest encounter of the young doctor's short combat career. He worked tirelessly, keeping his dressing station on the front line as he had done at Vaux. When he ran out of litters, he put a group of German prisoners to work making them out of blankets and poles cut from trees.

The regiment's losses were extremely heavy; every battalion commander was either killed or wounded. Many of the companies were now commanded by sergeants. At one point during the battle, Lieutenant Myers found himself in command of the 2nd Battalion. The final casualty figures revealed that the 9th Infantry had lost

66 per cent of its strength within the first three hours. When the battle was over, the surgeon remained behind for two days, searching the wheat fields for wounded who may have been left behind.

When he returned to his regiment in need of food and sleep, he was told that there was a field hospital at the railhead where doctors were needed. After a quick meal and a few hours of rest, he set out for the railhead. What he saw when he arrived shocked him beyond belief. More than a thousand men lay in the open, covering an acre of ground. There was no hospital and there was no train. The soldiers, many of whom had been treated by him on the front line, were begging for help. Some called him by name. Frustration and anger mounted as tears rolled down his cheeks. He located a colonel of the engineers and solicited his help. The colonel sent his men to assist the surgeon and contacted American headquarters. Within a few hours trains began to arrive. The dedicated doctor worked throughout the night and the following day loading the wounded on the trains.

Lieutenant Myers earned his Croix de Guerre with Palm for Soissons and moved on with the 9th Infantry to St. Mihiel in September and Blanc Mont Ridge in October. He very nearly became a casualty himself, but was saved by one of those not uncommon freak actions of an exploding shell. The battalion had taken shelter in some old trenches which had been badly damaged. While he was sitting in one of them between two other men, an American artillery shell fell short. Miraculously, he was left unharmed, but the two soldiers were killed instantly.

Battle at Blanc Mont Ridge

For the first 10 days of October, a fierce battle ensued at Blanc Mont Ridge. The doctor described his ex-



9th Infantry moving into Soissons sector from Chateau Thierry after forced march—July 1918.
PHOTO COURTESY OF U.S. ARMY MILITARY HISTORY INSTITUTE

periences in a letter to his brother which he wrote on Oct. 12, 1918.

I was so tired when I reached the woods at 3:30 a.m., about 2½ hours before the beginning of the fight, that I lay down and slept while they shelled us; but none came very close, that is 50 feet or so. The next morning, the damned rascals dropped one and killed 18 of my wounded men. I left this station, with about 100 wounded, in charge of another doctor. I advanced to another place. This was worse, as I was still in the open and now under machine gun and rifle fire as well as artillery. My station was again blown to hell killing two of my medical corpsmen and wounding four. I remained at this station several days and then advanced to another place. Here I got into one of the heaviest barrages I ever went through, but I managed to get my men into a dugout while the Y.M.C.A. man and myself attended to the wounded. I might add here that this Y.M.C.A. man was one of the most fearless men I ever knew. He had been with me ever since I joined this regiment. He was always with me

through thick and thin; no matter where I wanted to go or how dangerous the place, he was always anxious to accompany me.

It happened this night that he was helping to evacuate some wounded men to the rear and while so doing, he learned that our lines had fallen back without notifying me. In other words, our troops fell back and left me in no-man's-land. I was in a woods along a ravine and he was trying to find me and tell me what had been done, but he did not reach there that night. The next morning I found his body about 100 yards from my station with a bullet directly through his heart.

A day later I moved forward again and established myself at a very bad place, 41 feet from an ammunition dump in the open. I stayed here several days and it was here again that a shell made a direct hit in my station killing one man and wounding four. I left there and started another station, but before I left that one the next morning, a shell hit amongst us and killed four Germans who I had as litter bearers. This was my last day in the line and I was glad to get out as I

had been under fire for 10 days and it was beginning to tell on me.

When the battle was over, Lieutenant Myers found that he had been reported dead and that his orderly, who had remained in the rear, had sold his belongings. He sent his orderly to the infantry and got a new one.

The battalion commander recommended Lieutenant Myers for another Distinguished Service Cross and another Croix de Guerre. He didn't receive the Distinguished Service Cross, but he was awarded the Croix de Guerre with Star and a Silver Star.

9th's Night March

By early November 1918 everyone knew that the war would soon be coming to an end. Much bitter fighting lay ahead, however, and no one wanted to be the last soldier killed in the "last war." The 9th Infantry moved into the Champagne district and the Meuse-Argonne offensive, making their famous night march through German lines. As they moved through

the woods, they could hear the voices of the enemy soldiers, but the Americans were so quiet and orderly that the Germans thought they were their own troops.

The night before the attack on Beaumont Ridge, Charlie Myers had a terrible premonition that he would be hit. He felt that he had been incredibly lucky so far and feared that his good fortune had run out. In the morning he went forward with the assault wave. As he advanced, a shell burst nearby. He felt a sting and the trickle of warm blood on his face. He had a vision that half of his face had been blown away as he had seen in so many others. Finally, he mustered up the courage to examine himself and was relieved to find that his wound was minor. In fact, he almost rejoiced, believing that his

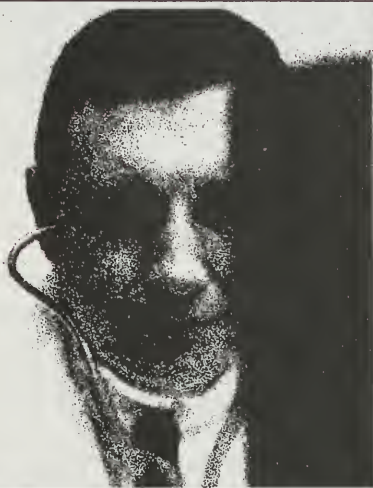
premonition had come true and that he would survive the war.

By November 10, the regiment was on the Meuse River, and the battalion surgeon quartered his staff in a barn for the night. This particular barn had been occupied by the Germans the day before. During the night a German hand grenade, concealed under the hay, exploded. It killed two enlisted men instantly and wounded a third who died in the lieutenant's arms.

The next day at 11 a.m., the guns ceased and the war was over. The battalion surgeon spent the remainder of the day helping the chaplain bury the dead. He was promoted to captain and remained with the occupation troops in Germany until July 1919 when he terminated his short, but distinguished military career.

Epilogue

Dr. Myers carried into civilian life the same courage and dedication which had won him five major decorations for gallantry. He became a fellow of the American College of Surgeons and Superintendent and Medical Director of the Indianapolis General Hospital, now known as Wishard Memorial Hospital. Remaining devoted to serving others, he took up residence in the hospital in order to be readily available for emergency surgery. In 1968 a seven-story, 406,300-square-foot addition to the hospital was named the Dr. Charles W. Myers Building, in recognition of his long, unselfish dedication to the community. Dr. Myers is now enjoying a well earned retirement with his wife Marguerite in Carmel, Ind.



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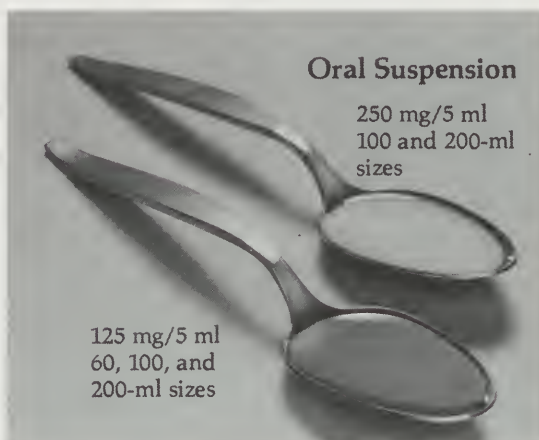
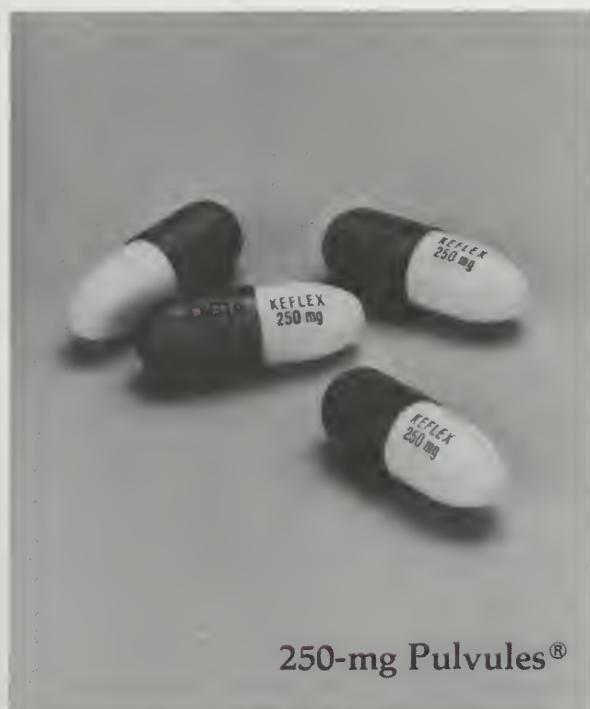
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'Tribute to the Bowen Years'

Dr. Bowen's Response

Following is the response made by Dr. Otis R. Bowen during the "Tribute to the Bowen Years" function in Indianapolis, Dec. 12, 1980. Dr. Bowen ended two terms as Governor of Indiana in January.

THANK YOU very much Jim—and thank all of you for that warm response. The temptation on occasions such as this is to reminisce too long. I shall try to resist—but I do beg a few minutes to respond.

First, let me offer my thanks and Beth's thanks—although I hope she will be able to respond briefly for herself—for helping to maneuver us into the position where such an event as tonight's could even occur. This means thank you for your support in our campaigns and for this administration.

Whatever success we have enjoyed over the past many years must be shared with you tonight—whether in your capacity as an executive aid, a department head, an employee, a friend and supporter, as a state, district, or county party organization officer, or as a fellow physician. Let me offer special thanks to the three state chairmen and the only state vice chairwoman with whom I've worked and served as governor—Jim Neal, Tom Milligan, Bruce Melchert and Betty Rendel. Now, I don't mean to say that you've never asked for anything, but in your doing so, you have been professional, helpful and non-demanding.

Many thoughts came to mind as I tried to prepare for this moment which is truly an emotional one for Beth and for me. Shakespeare said, "Like as the waves make towards the pebbled shore, so do our minutes hasten to their end."

Tonight, because you are here, and because of the reason you are here, I cannot help but say that a job worth doing and friends worth having, make life worth living. Serving over the years, first as a legislator, then minority leader, then speaker of the House and finally, as governor, represents a lot of years of sitting on a hot seat. It can be compared to a grindstone. It can "polish you up" or "grind you down."

Circumstances, and you the people, have been exceedingly good to Beth and to me and have added much polish to our years of service.

However, in spite of that, a certain degree of grinding down and wearing away in the process was inevitable. That may have been associated with a combination of pressures, responsibilities and getting a little older. But growing older and serving in these capacities is like climbing a cliff, ledge by ledge. The older one gets and the higher one climbs, the more tired and breathless one becomes—and the more exposed is his behind—but—the view one has becomes all the more extensive and all the more beautiful!

At the age of 80, Robert Frost said, "Despite all our fears and worries, life goes on. It always has and it always will."

I guess that is a good reminder that no matter how vital or important one's job . . . no matter how high or powerful one's position . . . no one is indispensable. I'm trying hard not to believe all the nice things you have said. Instead, I'm trying to convince myself as Luther Markin stated:

"With what you do don't be content,
Nor be mislead by admiration.
Consider each accomplishment
A journey and not a destination."

Nevertheless, thank you for saying all those nice things. May God forgive you for exaggerating and may He forgive me for enjoying it!

I have enjoyed being governor—most of the time. Serving, however, is a little like peeling an onion—you take it one day or one layer at a time, and sometimes you weep. But as I "wept" I would remind myself how hard I worked for the job. I think we'd all enjoy life more, if, once we've attained what we went after, we'd just remember how bad we wanted it. Governor Orr—that remark may have some significance for you over the next several years.

Beth and I have always felt that life would be enjoyable if we had happiness, freedom and peace of mind. We've found also that these three were more easily attained when we were able to give them to others. This job has helped us to do that a little bit better. Beth, however, has devoted her life to doing just that. She has emulated what Elbert Hubbard wrote: "I wish to live without hate, whim, envy or fear . . . If I can help others, I will do it by giving them a chance to help themselves, and if I can uplift or inspire, let it be by example, inference and suggestion . . ."

When I leave the governor's office, I do expect to remain busy. No one should expect to live in idleness and live either long or happy. An anonymous author stated the reason for this better than I could say it. He said, "The ship anchored in the harbor rots faster than the

ship crossing the ocean; a still pool of water stagnates more rapidly than a running stream; and, unused brain cells and muscles deteriorate much faster than those which are continually exercised." Therefore, to avoid this, as you already know, I have accepted a position as a professor in the Department of Family Practice at the Indiana University School of Medicine.

I believe it will offer contented living much like Goethe's prescription of the early 1800s, which is just as valid today as it was then. He said he wanted "health enough to make work a pleasure; wealth enough to support my needs; strength enough to battle with difficulties and forsake them; grace enough to confess my sins; patience enough to toil until some good is accomplished; charity enough to see some good in my neighbors; love enough to move me to be useful and helpful to others; faith enough to make real the things of God; and hope enough to remove all anxious fears concerning the future."

Before bringing Beth to the microphone, let me say to all of you that Indiana has to be one of the easiest states in which to serve as governor. It is so because of the quality of its people. Hoosiers are independent. They are industrious and they are also caring—very typical of the audience here tonight.

Let me also thank very profoundly the members of the committee that put this event together. I know they spent many months in planning. I also want to thank the Ball State Singers, the Singing Hoosiers of Indiana University and the Indiana National Guard Band for their very fine musical presentations of some of our most favorite songs. And the multi-media film presentation is indeed outstanding. We will always treasure this lovely memory book and this beautiful Bessire painting. Because of our interest and dedication to education, we are greatly moved by your contribution to the perpetuity of the Bowen Scholarship Fund at Valparaiso University and Ancilla

College, as well as to the Riley Camp Fund in Honor of Beth. Beth and I are grateful.

Finally, let me thank those who assisted in getting Beth here tonight. She wanted to attend in the worst way. Mrs. Lelia Chernish was the driving force behind the effort. Thanks also to Ray Rizzo for helping us get the special wheel chair; thanks to Metro for their special van; and thanks to this beautiful nurse, Mary Moffat, who has been inconspicuously standing by tending to her needs here.

As I give the microphone to Beth, let me quote a few lines of a poem by Peggy Cameron King entitled "Together Still:"

"Let me hold your hand as we go
down hill
We've shared our strength and we
share it still.
It hasn't been easy to make the
climb,
But the way was eased with your
hand in mine . . .
We move more slowly, but together
still,
Let me hold your hand as we go
down hill!"

Beth—

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Alsikafi, Fadhil H., Terre Haute
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Ball, G. Michael, Marion
Bhatt, Pallavi K., Boonville
Bleza, Maximo T., Munster
Bolinger, Garry L., Indianapolis
Castor, Conrad P., Munster
Cobb, Clarence M., Indianapolis
Cole, Larry G., Yorktown
Cortese, Thomas A., Indianapolis
Doss, Jerome F., Kokomo
Dunning, Preston M., Highland
Eastlund, Marvin E., Fort Wayne
Engel, Edgar L., Evansville
Gillespie, Charles F., Indianapolis
Gourieux, Edward D., Evansville
Griffin, Lula G., Indianapolis
Harris, C. Glenn, South Bend

Hoham, Frederick D., Portage
Holwerda, Harry L., DeMotte
Kappelman, Marc R., Indianapolis
Kaye, Robert C., Rensselaer
Knight, Lewis W., Fort Wayne
Kobak, Alfred J., Valparaiso
Kourany, Oscar, Mooresville
Lentz, William C., Fort Wayne
Marshall, Wilbur J., Munster
Masbaum, Ned P., Indianapolis
Moorthy, S. S., Indianapolis
Morrison, George G., Lawrenceburg
Peters, Elmer E., Brookville
Pruitt, Jacob E., Gary
Ress, Gene E., Tell City
Richmond, Harold W., Columbus
Roberts, Warren C., Indianapolis
Rogers, Robert E., Indianapolis

Roudebush, Corbin P., Indianapolis
Salberg, Larry M., Merrillville
Salomon, Jaime N., Fort Wayne
Salvo, Atee S., Williamsport
Semerdjian, Aram, Munster
Sheehan E. Gregg, Evansville
Siebenmorgen, Paul, Terre Haute
Smith, Philip L., Fort Wayne
Stafford, Tom M., Fort Wayne
Stoltz, Thomas J., Otterbein
Szanto, Philip A., Munster
Teter, George V., Indianapolis
Topper, Thomas E., Crawfordsville
Villa, Florencio C., Union City
Wadle, Robert H., Munster
Warner, Theodore M., Indianapolis
Welk, Gordon D., Rossville
Yoder, Carl J., Middlebury

New Tax Law for Partnerships Of Professional Corporations

Medical Practice Management

LEIF C. BECK, LL.B.¹
Bala Cynwyd, Pa.

WE HAVE WRITTEN several times about the concept of a "partnership of professional corporations," recognizing it to be the vehicle for giving physicians maximum possible flexibility as to retirement plan arrangements.² If two or more doctors practicing together have diverse needs or desires as to their pension funding, each can create his own professional corporation and then cause those "p.c.'s" to form a partnership for joint practice. Each doctor's p.c. can then adopt its own retirement plan to reflect its physician-owner's individual interests.

The concept has grown rapidly over the past few years. Although legal, accounting and other administrative fees were costly, it allowed the physician(s) seeking very large retirement plan funding to accomplish that goal within a group containing other physicians less desirous of such funding. In

some large clinics, which are often not incorporated at all, a few high-income members chose to incorporate themselves and still remain in the clinic's practice.

There were some uncertainties of tax and pension law, of course. Many partnerships of p.c.'s simply bulled ahead blindly, while others moved carefully to anticipate those potential problems. In the past few months, however, the two major concerns have been addressed so the picture is beginning to clear up. Unfortunately, each of the two concerns still has an area of uncertainty which the doctors and their advisors must respect as they continue their planning.

H.R. 7171

In December 1980, in its rush toward adjournment, Congress passed a series of so-called "Miscellaneous Tax Bills." One of them, H.R. 7171,³ contained provisions affecting "affiliated service organizations," a term essentially applying to partnerships of p.c.'s.

3. Revealing the hurried nature of these year-end bills, Congress included the same affiliated service organization provisions in a second tax bill—H.R. 7956—and President Carter signed them both. We will for convenience refer only to H.R. 7171.

This law arose as a response to two very unfortunate Tax Court decisions. The second one, known as the *Garland* case, held that a professional corporation in a partnership need not include in its retirement plan the employees of the partnership (typically the non-doctor staff) at all. Hence, a group of doctors could create a partnership of p.c.'s, after which each doctor could adopt his own corporate retirement plan for himself alone and provide no coverage for the lay employees. That result, while dramatic, was so contrary to the spirit of tax and pension law that it virtually required Congressional correction. H.R. 7171 provided that expected response. It essentially requires the employees of all "affiliated service organizations" to be treated as employed by a "single employer" for retirement plan purposes. While that statement may seem simple and straightforward, it leaves a number of questions directly concerning doctors practicing in or contemplating partnerships of p.c.'s.

What is an "Affiliated Service Organization"? The new law would clearly cause all the doctors' p.c.'s and the core partnership (presumably employing the staff) to be

1. Copyright © reserved by the author, 1981. Mr. Beck is one of the principal consultants of Management Consulting for Professionals, Inc., Bala Cynwyd, Pa.

2. See "The Professional Corporation as Partner," and "The Partnership of Professional Corporations Now Has a Dramatic New Advantage."

treated as a single employer. Of real concern, a group or clinic in which just one or several doctors incorporate while the majority of doctors remain as individual partners would be subject to the new rules. We know of several clinics and large group practices which will have serious difficulties with this result.

The law goes further by drawing into its web a number of other common medical practice arrangements which might not otherwise be anticipated. If an organization (whether a corporation, partnership, trust for children, doctor/spouse co-ownership or otherwise) is at least 10% directly or indirectly owned by a doctor who controls his practice as owner, officer, etc. and if the organization provides services to or for the doctor's practice, then it will also be part of the "single employer" for retirement plan coverage.

Thus, doctors who might have spun off a separate billing company, a laboratory, an x-ray facility or the like may have to cover those ancillary employees for retirement. Interestingly, however, it appears that an entity that offers its services directly to the practice's patients and directly bills those patients for its services can avoid the new rules. We know of many x-ray, laboratory, audiology, optical, etc. activities structured this way, and doctors forming new ancillary service activities should keep this in mind.

How Are All Employees to be Covered in the Retirement Plan(s)? Read literally, the requirement of treating all such related employees as being within a "single employer" will be troublesome. It could require that there thus be a single retirement plan for all the separate entities, killing the partnership of p.c.'s flexibility, but we do not expect that interpretation.

It should be sufficient if all the

employees of the various affiliated organizations are covered by various retirement plans that basically provide "comparable" arrangements for the lower paid staff. H.R. 7171 delegated to the Treasury Department broad authority to issue regulations on such matters, but one cannot predict when such regulations might actually be published.

There is a fear that the Treasury may require a "best plan" approach—requiring that the best (and presumably most costly) retirement plan adopted by any of the corporate partners be provided for all the related employees.⁴ This would obviously destroy the usefulness of partnerships of p.c.'s altogether, but logic is fairly strongly against the approach. While recognizing it as possible, we do not expect the "best plan" approach to be required.

More likely, the Treasury may follow prior IRS rulings⁵ and permit each separate corporation to include the partnership's lay employees in its own retirement plan on a pro rata basis. For example, if Dr. A's corporation is a one-third partner with two other doctors' corporations, his corporate retirement plan must include all the partnership's employees—but only to the extent of one-third of their salaries. Drs. B and C would have to do the same through their corporations. We have anticipated this continued "pro rata" approach for some of our clients, although it tends to be more costly as a matter of retirement plan accounting and administration.

4. Lamon and Thompson, "Qualified Retirement Plans for Affiliated Service Corporations: What to do Under New Legislation," *Taxes—The Tax Magazine*, February 1981, p. 67.

5. Rev. Rul. 68-370, 1968-2 CB 1974, officially states this IRS position; it has been followed in numerous private Letter Rulings such as #7834059.

Another alternative would be for the partnership to adopt its own retirement plan or plans covering only its non-doctor employees, attempting to make the features "comparable" to those of the various doctors' separate corporate plans. Many of our clients would prefer this approach since each doctor's plan would be for him alone, lumping the employees into a separate arrangement.

Adopting a single "comparable" plan for the partnership's employees will hopefully be acceptable to the IRS if the separate doctors' corporations have approximately equal retirement plans. We have a few clients for whom that is the fact, but in most cases the variations at the doctor level will make the "comparable plan" approach unworkable.

When is the New Law Effective? H.R. 7171 was not at all generous as to the effective date of these provisions. The rules apply to retirement plan years ending after Nov. 30, 1980, if no plan was then in existence. Thus, anyone who created a partnership of p.c.'s but had not yet adopted retirement plans was immediately under the new law and the described uncertainties. One client situation of ours included doctors who had selected Jan. 31 fiscal years, and there was real crisis in deciding how to proceed so soon after H.R. 7171 was barely in our hands.

If a retirement plan was in existence on Nov. 30, 1980, the new rules apply for the plan year beginning next after that date. This provided some planning time for those doctors involved, although we cannot predict whether Treasury regulations will be proposed or adopted on the subject even within that time span.

What Should Involved Doctors Do Now? The best advice for many existing or newly created part-

nerships of p.c.'s will be to wait as long as possible before adopting retirement plans.⁶ Hopefully, Treasury will issue its regulations or some interim guidance to help the plan design decisions be better informed. But deadlines do exist as corporate fiscal and retirement plan years approach, and new arrangements must be legally adopted before those years expire.

Each arrangement will be unique enough that expert and perceptive advice will vary from case to case. Nevertheless, in most cases we would suggest following the "pro rata" approach whereby each doctor's corporation includes the partnership's lay employees to a proportionate extent of their salaries. This approach involves some very special retirement plan draftsmanship in itself (providing pro rata for "integration" with Social Security, for example) and hence cannot be done with master, boilerplate language.

In applying for IRS approval, we suggest submitting all the related organizations' plans together. Full disclosure of the overall arrangements should be made with the IRS application so that ultimate plan qualification cannot later be revoked because of insufficient information. One cannot predict the IRS' determinations, especially not before Treasury regulations are issued, but the "pro rata" approach and full disclosure would seem to be the best available strategy for most doctors.

Effect on Other Fringes. H.R. 7171 added another point which came as a surprise. It extended the "single employer" concept to uninsured medical expense reimbursement plans ("MERPs") and to "cafeteria plans"⁷ of so-called affiliated service organizations. Until then, those fringes had not been mentioned in other proposed leg-

islative action against the *Garland* result.

Therefore, doctors in partnerships of p.c.'s will no longer be able to arrange for the payment of their own family's uninsured health expenses through separate corporate MERPs or cafeteria plans without covering the lay staff as well. If either of these fringes were in existence on Nov. 30, 1980, the doctors might recognize the present fiscal year (if not yet ended after that date) as their last chance to cost-effectively pay their family's dental, orthodontic, optical, etc. expenses through their separate corporations.

Conclusion as to H.R. 7171. We are not intellectually aggrieved by the new law, for the *Garland* case clearly required such correction. However, the Act creates a degree of uncertainty which will prove extremely difficult for some partnership of p.c.'s situations. And it emphasizes the need for still more careful advice and plan draftsmanship to meet the rules and their implications.

Nevertheless, the partnership of professional corporations will probably continue to be a useful device for doctors' individual retirement plan flexibility. H.R. 7171 and what we hope will be reasonable Treasury regulations thereunder should help by providing a reasonable set of guidelines within which such arrangements can function.

Letter Ruling 8031028

There has always been some question whether the IRS would concede that a partnership of p.c.'s would allow individual doctors to deflect differing amounts of income into retirement plans at all. Certain

tax law sections permit the IRS to reallocate income among related entities to avoid tax avoidance and to better reflect economic reality. And some advisors have considered the partnership of p.c.'s an artificial technicality designed to give doctors more tax and pension advantage than the law basically intends.

IRS Letter Ruling 8031028, a "Technical Advice Memorandum,"⁸ last year appeared to agree with those pessimistic views in dealing with an unfortunately poorly created fact situation. The ruling recited a group of factors which led to its finding that the share of income accruing to one doctor's p.c. was all taxable to that shareholder-doctor and not to his p.c. Thus, he paid tax on all the income and there was no deduction for the retirement plan contribution. The ruling recited two Tax Court decisions involving fact situations that virtually cried out for such an adverse finding.

While Letter Ruling 8031028 warns us that partnerships of p.c.'s might be attacked upon tax audit, we think it actually helps guide the way to success. The recital of factors leading to adverse tax treatment allows careful structuring of the arrangement to avoid those factors. Let us list the seven items named in the ruling with our parenthetical observation:

- There was no partnership agreement showing that the p.c.'s, not the doctors, were the partners. (We feel the partnership agreement must strain to reflect the technical realities of corporate status as part-

7. Cafeteria plans are special arrangements whereby corporate employees may choose between various fringe benefits and the corresponding cash as best suits each person, as permitted by the Revenue Act of 1978.

8. Under tax law, a letter ruling may not officially be used or cited as precedent for taxpayers other than the specific person who received the ruling. However, a Technical Advice Memorandum and/or letter ruling may be used as guides for IRS agents' forming their own positions, and tax advisors commonly study and discuss them to determine proper advice to clients.

6. Lamon and Thompson, *supra*, p. 73.

ners, which a routine document would not do.)

- The doctor did not assign his interest in the partnership over to his p.c. (We take pains to recite and document each separate technical step in moving to the final arrangement, a basic matter of paperwork and attention to detail.)

- The doctor did not enter into an employment contract not to compete with his p.c. (This is a simple matter to provide, and we suggest a restriction against competing with the partnership as well.)

- Insurance policies were not changed to provide coverage for the p.c. (General liability and malpractice insurance can easily be amended to include the p.c. To the extent possible, we also recommend extending coverage to the partnership.)

- The p.c. did not hire any physician or lay employees other than the single doctor-owner. (This is a problem since most partnerships of p.c.'s keep all staff out of the p.c.'s. To the extent each p.c. can separately employ one employee—that doctor's own secretary or nurse, for example—it would be helpful.)

- The p.c. did not incur any debt other than for its retirement plan obligations. (This is also a problem

since most partnership of p.c.'s arrangements simply siphon the share of income through the p.c. to the doctor's salary and retirement fund with little other definable business expense or activity.)

- The p.c. retained much of its earnings and made substantial loans to its doctor-owner. (This shows that the specifically discussed arrangement involved a doctor trying to take too many dubious tax advantages within his partnership of p.c.'s)

Of the seven factors, five of them can easily be avoided by very careful handling. While the other two will typically be failed unless the arrangement is modified rather substantially from its normal pattern, satisfying five of seven factors should permit the desired tax protection. In effect, then, Letter Ruling 8031028 gives us a "scorecard" for achieving tax legitimacy.

The ruling did state that the seven factors "coupled with all the other evidence" led to the adverse tax result. We urge any partnership of p.c.'s to be extremely thorough and detailed in all its documents, contracts and actual operations to prove the differences between partnership, p.c. and doctor as tax theory requires. For example, any letterhead or billhead should specifi-

cally recite that the partnership's partners are the doctors' p.c.'s and not the doctors themselves.

Furthermore, the physicians who create a partnership of p.c.'s should be circumspect in avoiding related tax "gimmickry." The adverse tax decisions and the letter ruling involve examples of what we call the "pig syndrome"—doctors who not only took this advantage but strained for other benefits (such as interest-free corporate loans) not well accepted by the IRS. Since the partnership of p.c.'s offers a high-income physician such a dramatic retirement funding opportunity within his group practice, we think he should stay low-key as to other tax-saving devices in order not to jeopardize it.

The subject is not much different from basic professional corporations 10 to 15 years ago. Venture-some doctors led the way by incorporating their practices in an atmosphere of IRS resistance and tax uncertainty. Attention to details often thought annoying and unnecessary helped establish the professional corporation's legitimacy, and the IRS came to accept it rather routinely. The same attention to detail and legal theory is important for the partnership of p.c.'s—the second generation of professional corporation thinking.



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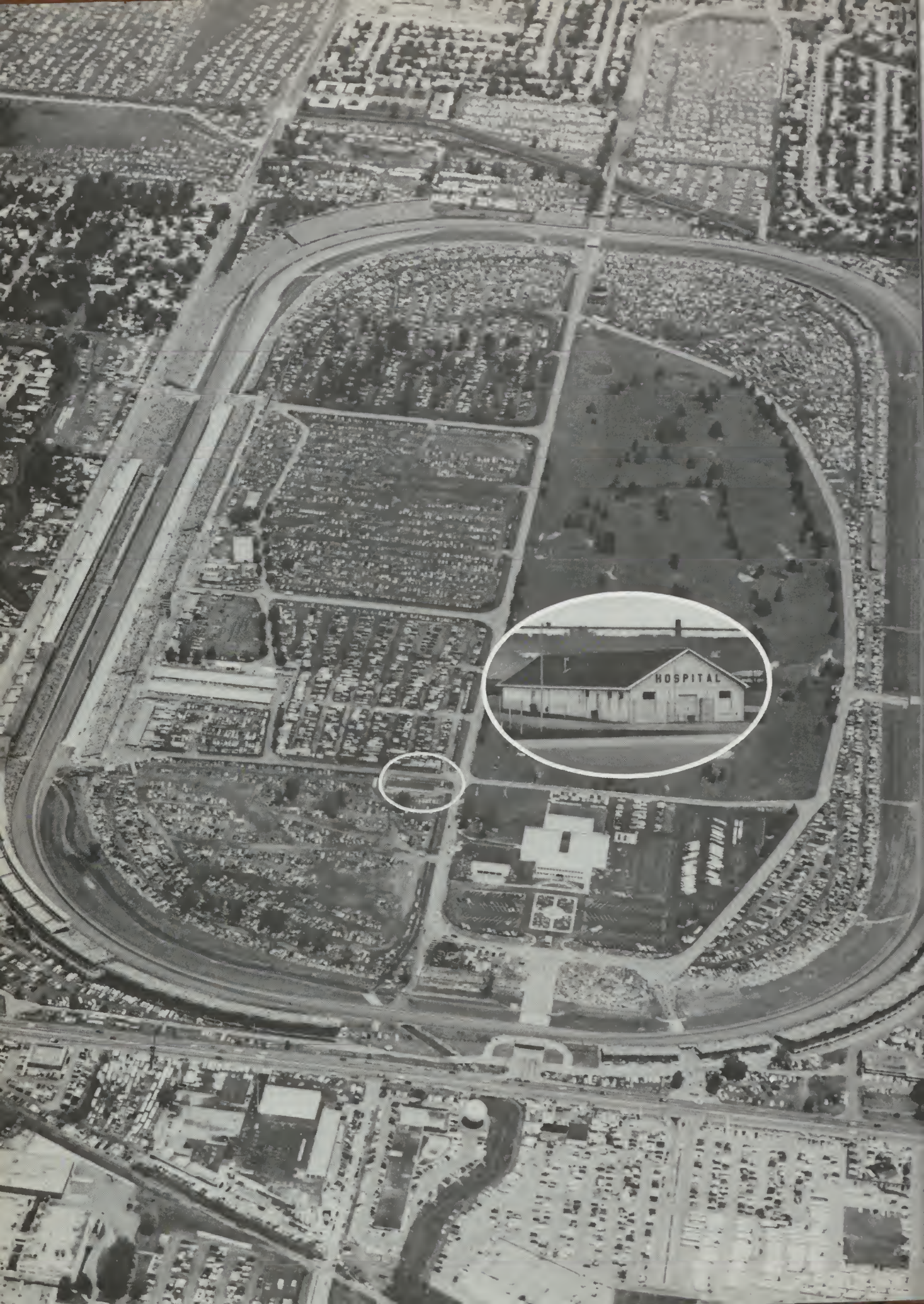
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The Challenge of Mass Medicine

THOMAS A. HANNA, M.D.
Indianapolis

THE INDIANAPOLIS Motor Speedway provides the ideal opportunity to study and practice the care of crowds under unusual circumstances.

Approximately 1½ million people pass through the Speedway gates every May for the annual 500-mile race. Up to 400,000 people may be on hand on Race Day—all of them accident-prone. Why?

Most Speedway newcomers do not realize how much effort is required to reach their seats through masses of humanity. Many are fatigued on arrival for various reasons, including overnight parking, and are therefore more susceptible to illness or injury. And, despite radio and TV warnings, many people who have had recent severe illnesses or injuries will still try to become a part of the spectator group, only to end up in our emergency facilities.

Casualty Factors

Factors that influence the number of casualties in mass groups vary widely. For example:

Weather conditions. Heat and sunshine can produce minor sunburn or severe heat stroke. Rain can be responsible for falls, sprains, cuts, contusions or fractures.

The author has been medical director of the Indianapolis Motor Speedway since 1960. A related article, "Indianapolis Motor Speedway: Where 125 Doctors are 'In' on Race Day to Service About 300,000 People," appeared on pages 288-289 of THE JOURNAL in May 1980.

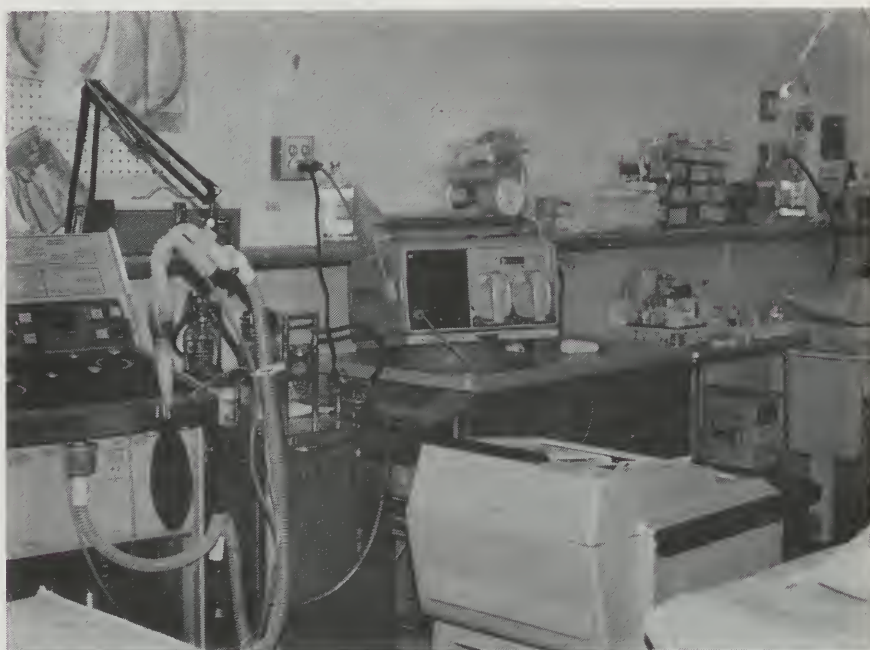
Food. Many people pack lunches and snacks without considering lack of refrigeration at the track. Hot days can produce spoilage, resulting in gastrointestinal upsets. A few cases of severe food poisoning are often treated.

Clothing. Improper wearing apparel will influence the number of people treated. Barefoot youngsters frequently suffer cuts requiring cleansing and suturing. Abbreviated clothing such as shorts can lead to severe sunburn, insect bites, abrasions and lacerations. Overdress, on the other hand, (e.g., band members wearing winter uniforms) leads to fainting and heat exhaustion.

Excitement. Excitement over the

contest often results in simple nervous exhaustion, treated by isolation and rest. Slips and falls during exciting moments may lead to contusions, sprains or fractures. More serious consequences of exciting situations include coronary occlusions and cerebral vascular accidents; these conditions require facilities equipped for intensive care and stabilization of the patient prior to transfer to another hospital.

Catastrophic Incidents. When planning to care for large groups of people, advance arrangements must be made for such contingencies as collapse of a spectator stand, participant accidents involving spectators, severe weather conditions, or massive traffic accidents.



Patients at the well equipped emergency room of Indianapolis Motor Speedway's field hospital are mostly spectators—as many as 1,500 people may be treated on Race Day alone. Most of the large equipment is on loan from various manufacturers for the month of May.

Preparation of Emergency Facilities

The preparation of a facility for emergency procedures will depend on the size of the expected crowd and on the type of program being presented.

Our facility at the Indianapolis Motor Speedway must be somewhat extreme compared to that necessary for the average football or baseball game.

Our unit is well departmentalized with x-ray, laboratory facilities, 10 treatment units, and two intensive care units with the latest equipment needed for monitoring, defibrillating and resuscitating; our intensive care units also are equipped with intravenous solutions, emergency cardiac and shock drugs, and—above all—personnel who

know how to use the equipment. Suture sets are prepackaged and sterilized, ice packs are kept in a freezer, and each unit is stocked with the drugs needed for certain types of work.

Our patients are triaged on arrival and directed to the type of cubicle their treatment requires. We also have seven satellite stations where more minor cases may be treated and the patients released.

Since almost every conceivable type of case may be expected on Race Day, our staff of doctors must represent every specialty of medicine; in addition, we have available residents, interns, respiratory therapists and emergency medical technicians (EMTs). Our nurses are all RNs. We also require an administrative and legal staff. The

success of this operation has been well documented in many publications.

Summary

The promoters of any type of contest that involves large crowds should have an emergency facility available for the protection of spectators. Although the size of the facility can be tailored to the number of people expected, the facility itself must be capable of treating and stabilizing patients before they are transferred to a hospital. Such arrangements could save many lives now being needlessly sacrificed.

Sports and other types of entertainment depend on the audience for their very existence. The protection of this audience is a promotional obligation.

Administration of a Mass Medicine Facility

THOMAS A. HANNA, JR.
Indianapolis

THIS ARTICLE deals with events where trauma or illness can become massive because of large numbers of people, from related or unrelated incidents. Such a situation may occur at sporting events, rock concerts, conventions or meetings of long duration. This article does not pertain to natural or man-made disasters usually handled by civil defense, fire rescue or local hospitals.

Unlike the usual administration of a hospital, the administrator must understand, in fact almost anticipate, the needs of the medical staff. He must place more emphasis

The author is assistant director of planning, Indiana University School of Medicine, and administrator of the Indianapolis Motor Speedway Hospital.



on planning and less on operations. There will be very little concern over finances.

Planning

Before detailed planning or organization can begin, certain items must be considered. For example:

- *Scope of service required by the owner, sponsor, director or promoter of the event.*

Is the event on private property or public property?

Is care to be provided for everyone on the property or only for participants and not the spectators?

Are all medical problems to be handled, or is the facility available only for life-threatening emergencies?

Is medical transportation, if required, to be provided or will a local ambulance be called?

Who will pay for equipment and supplies?

- *Physical facility for the event.*

Is this an indoor or an outdoor event?

What is the size of the area?

Are parking lots, picnic areas or other space included in the scope of service?

Can all parts of the area be reached quickly, remembering that aisles, corridors, access roads, etc., will be jammed with people, espe-

cially just before and after the event?

- *Spectators attending the event.*

How many spectators are expected?

Will they be young, older people, or a mixed age group?

Will they be local people or will many have traveled a long distance to attend?

Will they walk a long distance to their seat?

Will alcoholic beverages be sold or allowed on the premises?

Is drug usage anticipated?

Will extremely long or late hours be involved?

- *Participants in the event.*

If this is a sporting event, is it amateur or professional? Will the participants be medically approved? What type of injuries can be anticipated—burns, fractures, cardiac problems, lacerations, etc.?

If this is a rock concert, will drugs or alcohol be a problem with participants?

If this is a convention or other long meeting, will exhaustion be a factor?

Research

Talk to the administrator, medical director or director of the same type or a similar type event. Previous experiences can be of great value.

Organization

Armed with the above information, the administrator can participate with the medical director in detail organization.

- *Medical facility:*

One central medical area? Size? Number and type of treatment areas?

Central medical facility with outlying stations? Size of each? Number and type of treatment areas?

Decentralized facilities? Number? Size of each? Number and type of treatment areas?



Mr. Thomas A. Hanna, Jr., left, is administrator of the Indianapolis Motor Speedway hospital. His father, Dr. Thomas A. Hanna, right, is the Speedway's medical director.

An area for family or friends accompanying the patient separate from the treatment area is helpful.

Be certain there is adequate lighting and that enough electric outlets are available.

- *Personnel:*

Type of personnel? Physicians? Nursing staff? Emergency medical technicians?

Number of each type? Allow for relief if long hours are involved.

If personnel are to be paid for their services, the administrator should arrange a proper wage scale.

Arrangements should be made for credentials to allow personnel admission to the event and access to all areas of the event.

If necessary, arrange for personnel to receive meals.

Contingency plans should be made in case the event is postponed.

- *Equipment and supplies:*

The administrator can procure the equipment and supplies which the medical director determines necessary. Some manufacturers may loan equipment to the medical facility. The administrator should try to arrange with suppliers to pay for only those supplies actually used.

Arrange for treatment tables and beds.

Plan for cabinets or shelves for storage.

Arrange for linen.

Arrange for refrigeration, if necessary.

Plan for communications, to include telephones and two-way radios.

- *Local ambulance service:*

Will a local ambulance service station vehicles at the event? How many? Will they be "on call?"

Be sure drivers are familiar with the area, the location of the medical facility, and which entry gates to use.

Arrangements should be made to pay for services, if required.

- *Contract ambulance service:*

Be certain only approved vehicles will be used.

Arrange for number of vehicles and where they are to be located.

In the contract, specify what equipment is to be contained in the ambulance.

Orient the drivers to the area of the event and routes to local hospitals.

- *Local hospitals:*

Arrangements with local hospitals should be made for necessary admissions, outpatient services beyond the scope of the event facility, and for disaster situations which might happen.

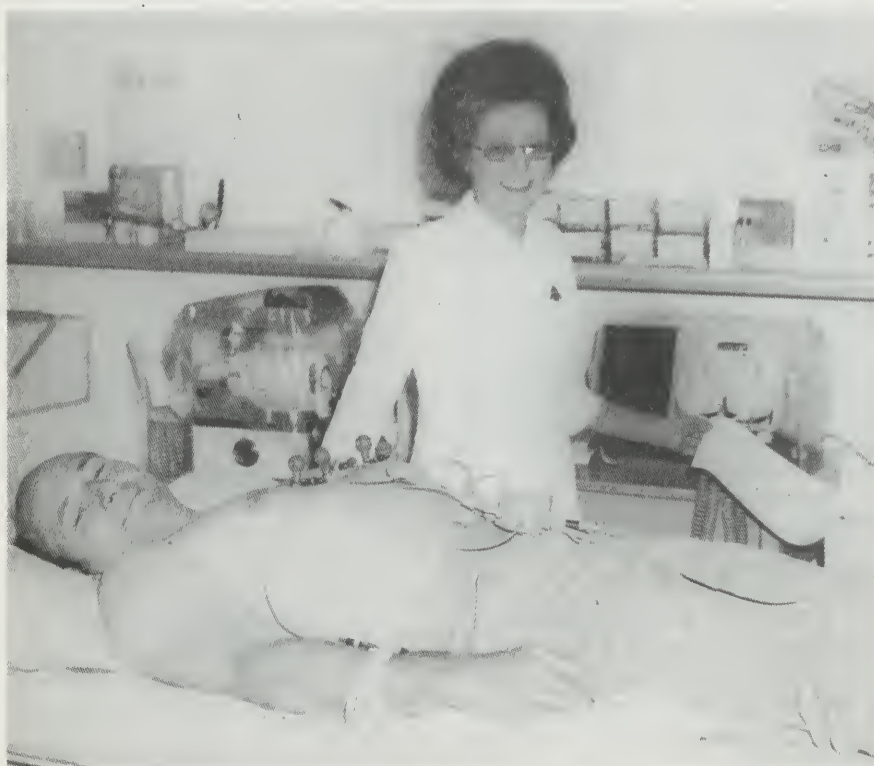
Definite lines of communication must be established to these institutions.

- *Ancillary services:*

The administrator should arrange for any ancillary services—x-ray, laboratory—determined necessary by the medical staff.

- *Records:*

Trauma at this type event carries a high risk of liability problems. Detailed records should be kept on each patient. Such records should contain complete patient identification, brief history including aller-



Miss Barbara Lea Webb, IMS director of nurses since 1953, runs an ECG strip on driver Dick Simon at the field hospital. All drivers must have a complete physical examination before they can qualify for the race.

gies, pertinent physical findings, diagnosis, treatment, recommendations or instructions given, and the physician's signature.

All patient records should be made in duplicate.

Have an adequate number of record forms printed.

Other Administrative Responsibilities

Meet with the insurance carrier for the event to be certain that all medical personnel are adequately covered.

Meet with the appropriate legal counsel for the event. Advise him of the medical facility and the details of plans and services. Inform him of what patient records will be maintained, determine if they meet his approval, and if he wishes to arrange for him to receive a copy of the completed records.

Be sure that all personnel working for the event—ushers, ticket sales, security—know of the medical facility and its location.

Have appropriate signs posted for the facility locations.

Make arrangements for security for the facility. This will prevent unwanted visitors from wandering through the facility, handle unruly family or friends of patients, assist with violent patients, and protect the personnel, equipment and supplies.

Notify local emergency medical services, police and fire rescue of the facility in case they are inappropriately called for an emergency.

Physical Set-up of Facility

Allow adequate time to prepare the facility.

Notify suppliers well in advance of when and where items should be sent.

All personnel should participate in this function so that they know where supplies and equipment are located.

Test all medical equipment.

Check all communications equipment.

Check all ambulances for required equipment.

Have medical record forms at each treatment area or at a conspicuous central location.

Administrative Participation During the Event

The administrator should be a functioning member of the medical team. He should:

Be certain all personnel are on duty.

Participate in adjusting personnel assignments, if necessary.

Assist with internal and external communications.

Procure additional supplies, if necessary.

Be certain medical records are maintained.

Closing the Facility

Arrange for adequate help.

Return all supplies and equipment.

Arrange for payment of all expenses.

Arrange for proper safekeeping of all medical records with medical director, legal counsel, or both.

Prepare a written report, for the director of the event, of the activities of the facility, documenting problems and possible solutions. Retain a copy for use in future activities.

Summary

Obviously, considerable time is required to plan, organize and operate this type of facility. Planning and anticipation are vital.

The medical director, director of the event and the administrator must enjoy a close working relationship.

THE JOURNAL offers its readers a Continuing Medical Education series of articles prepared by the faculty of the Indiana University School of Medicine. The program is coordinated and supported by a grant from the school's Division of Continuing Medical Education.

As an organization accredited for continuing medical education, the Indiana University School of Medicine certifies that this CME activity meets the criteria for one credit hour in Category 1 for the Physician's Recognition Award of the American Medical Association, provided it is used and completed as designed.

To obtain Category 1 credit for this month's article, complete the quiz on Page 299.



Pulmonary Tuberculosis: Diagnostic Clues on the Chest X-Ray

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ABSTRACT

In 1979 there were 1,743 known cases of tuberculosis in Indiana, and in the same year more than 500 new cases were reported to the Division of Tuberculosis and Chronic Disease Control of the Indiana State Board of Health. Since more than 90% of patients with tuberculosis today have pulmonary involvement, the chest roentgenogram is the most important initial test when this disease is suspected. Recognition by the practicing physician of the protean chest radiographic features of tuberculosis is the most important step toward early diagnosis and treatment of this infectious disease. This article briefly reviews the common and unusual radiographic features of tuberculosis.

Pulmonary Tuberculosis: Diagnostic Clues on the Chest X-Ray

Many published reports in the mid and late 1800s documented the presence of active or healed tuberculosis (TB) at autopsy in 50% to more than 90% of adult city dwellers.¹ In 1900, TB caused one of five deaths among those aged 15-44 years. Overall annual mortality from TB in the U.S. and Indiana between 1901-1905 was 171 and 193 deaths per 100,000 population, respectively. In New York City in 1900, 85% of children were infected with *Mycobacterium tuberculosis* by age 14.

In just 80 years there have been dramatic changes. Today, the an-

nual case fatality rates for TB in the U.S. and Indiana are less than one per 100,000 (Table 1). Only about 2% of high school seniors have a positive intermediate strength tuberculin skin test. While TB case rates have been declining since the 1700s, the introduction of effective chemotherapy in the 1950s caused a significant decrease in both case and mortality rates.

Current Problems in TB Management

Despite these impressive changes, TB remains a significant medical and public health problem in pris-

ons, nursing homes, among lower socioeconomic classes and among immigrants and refugees who settle in the United States. Health care workers continue to have added risk for developing TB. Tuberculin conversion rates in recent medical school graduates exceeded 1%, twice the U.S. average; and TB developed in one in 10 physicians infected after entry into medical school.²

Our recent experience at Wishard Hospital emphasizes the current difficulties of managing TB. Among 129 consecutive admissions for culture-proven TB we found: 40% were alcoholics, 26% had single or multiple drug resistance, 10% were prisoners, and during outpatient management, 40% were lost to follow-up by six months. Others have noted high drug resistance rates in inner city communities and among foreign born immigrants, particularly those from Southeast Asia.³

With the closing of most TB sanatoria, private physicians, community hospitals, and health departments have assumed primary responsibility for management of TB.⁴ Fragmentation of follow-up and case contact investigation have become problems in some communities.

Funding for TB control has markedly decreased, placing the burden of cost for care on patients who often elect not to continue therapy or follow-up because of the expense. Many physicians have had little if any education in TB management. A recent study showed that more than 60% of 130 TB patients were inappropriately managed by physicians, including board certified internists.⁵ Many medical schools have abandoned or neglected formal education in TB.⁶ With decreasing incidence and prevalence of TB, fewer physicians see patients with the disease. As a result, TB often is not included in a

TABLE 1: CHANGE IN TUBERCULOSIS DISEASE AND DEATH RATES FROM 1956 TO 1979

	UNITED STATES		INDIANA	
	1956	1979	1956	1979
New Cases	69,895	27,817	1479	509
New Case Rate†	41.6	12.6	33.4	9.4
Death Rate†	8.4	0.9	7.3	0.7

† Number per 100,000 population per year.

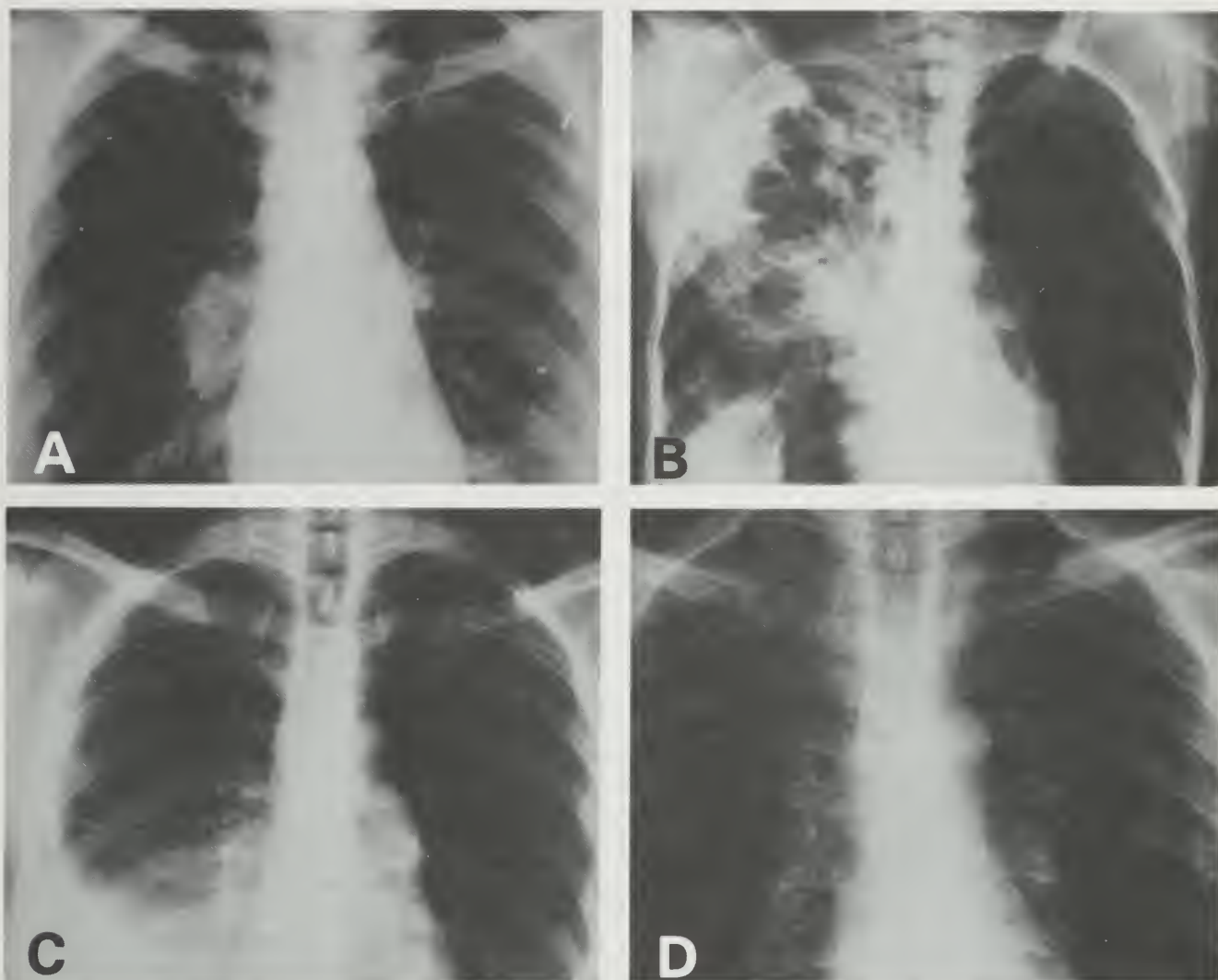


Figure 1 A-D: These figures illustrate typical abnormalities caused by TB that will be encountered by the clinician. Please match each figure above with the appropriate clinical history that will be found in the CME Quiz in this issue (Page 299).

differential diagnosis. Recent studies have documented significant delays in diagnosis of TB. Among 69 cases in which the diagnosis of TB was first made at autopsy, diagnoses of pneumonia, cancer, and heart failure were erroneously made.⁷ The major problem was simply failure of the physician to consider TB as a possible diagnosis.

The serious consequences of delay in diagnosis and treatment of TB are increased morbidity, mortality, and increased risk of infecting others. Outbreaks or "epidemics" of TB have been described in hos-

pitals, schools and nursing homes. In urban communities where drug resistant TB may comprise 15 to 30% of cases, failure to quickly diagnose, isolate, and treat patients admitted to community hospitals poses serious public health problems for patients and personnel.

Since few hospitals systematically monitor skin test conversion rates in hospitalized patients, an outbreak of TB easily could go unnoticed since primary infection usually is not associated with clinical illness. Of additional concern regarding TB control in hospitals is

the fact that autopsy rates have decreased in recent years. I reviewed autopsy data for most major hospitals in Indianapolis in 1979 and found rates varying from 10% to 50%. With such low rates, the use of the autopsy to monitor the frequency of clinically undiagnosed TB has been sharply curtailed.

Diagnosis of Tuberculosis

The diagnosis of TB requires a high index of suspicion by the physician and the appropriate use of tests including the Mantoux skin test (5 tuberculin units of Tween

stabilized PPD), smears and cultures of sputa for mycobacteria, and occasionally other diagnostic tests such as histologic and mycobacteriologic examination of biopsy material. Since more than 90% of cases involve the lungs, the chest radiograph is an important diagnostic tool. Most frequently, it is an abnormality on the chest film that prompts the diagnostic search for TB. The remainder of this discussion will focus on the use of the chest roentgenogram in diagnosis and management of TB.

Several general points should be made:

- As a diagnostic test, the chest radiograph is fairly *sensitive*, e.g., if the lungs are involved with TB, the film usually will be abnormal. The chest radiograph, however, lacks *specificity*, e.g., radiographic abnormalities such as cavities, nodules, or infiltrates frequently are caused by non-mycobacterial diseases such as bacterial pneumonia, lung cancer, fungal infections, or atelectasis.

- The chest radiographic changes in TB are protean. Therefore, TB should be on the differential diagnostic list for virtually all abnormal chest radiographic findings. The disparate chest radiographic abnormalities of TB are demonstrated in *Figure 1*.

- The "classic" chest radiographic findings of TB may be obscured or altered by preexisting cardiopulmonary disease, as in congestive heart failure, chronic obstructive lung disease, or interstitial lung disease. In addition, the apparent absence of abnormalities on the routine posteroanterior (PA) and lateral chest roentgenogram does not exclude a diagnosis of TB, including miliary TB.

- Tuberculosis frequently coexists with other diseases that may cause an abnormal chest roentgenogram, e.g., lung cancer, histoplasmosis, sarcoidosis, or silicosis.

TABLE 2: RADIOGRAPHIC EXAMINATION OF THE CHEST

1. Posteroanterior (PA)
2. Lateral
3. Apical Lordotic
4. Obliques
5. Lateral Decubitus
6. Laminograms
7. Barium Swallow
8. Special procedures (CAT scan, etc.)

- The activity of tuberculosis cannot be accurately determined radiographically. Beware of x-ray reports such as "old" or "inactive" or "burnt out" or "healed" tuberculosis. Interpretations such as "consistent with inactive TB but must confirm by sputum examination" or "consistent with active TB but must confirm with sputum examination" are more appropriate.

- Finally, the radiographic features of TB will generally reflect the nature of tuberculous disease. TB in children or young adults is usually "Primary TB" while TB in older patients is usually "Reactivation TB". Recognition of the radiographic features of these stages of TB will facilitate roentgenographic interpretation.

Radiographic Examination of the Chest

Table 2 lists useful radiographic procedures. Posteroanterior (PA) and lateral chest roentgenograms are required in all patients suspected of having TB. Both PA and lateral films are required since, not infrequently, abnormal densities may be seen only on one view. Apical lordotic views are helpful when suspected abnormal lung densities in the apical regions are obscured by ribs or the clavicle. Ill-defined right middle lobe shadows may be better defined by lordotic views. Oblique views may clearly differ-

entiate pleural from parenchymal disease. Also, oblique views may clearly show the edge of a shifted fissure in suspected volume loss.

Lateral decubitus views help differentiate pleural thickening or parenchymal consolidation from free pleural fluid. Chest laminograms may be very helpful in confirming the presence and location of abnormal parenchymal densities and in documenting the presence, size, and location of lung cavities.

In one review of 271 chest tomograms in patients with tuberculosis, cavitation was noted on tomograms but not on conventional films in 19.5% of cases.⁸ Mediastinal lymph node enlargement may cause esophageal compression that can be documented with a barium swallow. The value of computerized axial tomographic (CAT) scans in diagnosis of chest disease in general and TB in particular awaits further clarification and study; however, CAT scans may be particularly helpful in establishing the presence, nature, and location of pleural and mediastinal disease.

Serial chest roentgenograms are of immense help in diagnostic chest radiology and particularly in the evaluation and management of TB. Vigorous efforts to obtain old films should be made before an extensive and usually expensive diagnostic evaluation is initiated.⁹ A common mistake in interpreting films in TB patients is to neglect to examine all available roentgenograms. Subtle changes may be missed if only the most recent films are examined.

Primary Pulmonary Tuberculosis

Primary tuberculosis results from infection in a previously uninfected host. It was almost exclusively a disease of young people; but, as the proportion of the adult population previously infected by TB has decreased in recent years, primary TB is being seen more frequently in adults.¹⁰ The majority of primary

infections are not associated with clinical illness or chest radiographic abnormalities.¹¹ In the minority of patients who develop chest lesions, the abnormalities may be quite varied (Table 3).

While there are similarities in radiographic abnormalities in children and adults, important differences are apparent.^{10,12} Hilar and/or paratracheal lymph node enlargement is uniformly found in children but is present in only about 50% of adults with primary TB. While bilateral hilar adenopathy is occasionally seen in children,¹² it is uncommon in adults.^{10,13,14}

Atelectasis occurs in about 30% of children but this finding is infrequent in adults. Atelectasis is usually caused by bronchial compression and obstruction by adjacent enlarged lymph nodes. It is more frequent on the right side and commonly involves the anterior segment of the upper lobe or medial segment of the middle lobe.

Pleural effusion is an infrequent manifestation of primary TB in children but occurs in almost 40% of adults. Occasionally, primary TB will progress to resemble "reactivation TB" with cavity formation, e.g., "progressive primary TB". It is most frequent in persons under one year of age and in young adults where several authors have reported an incidence of about 10%.¹⁰

Complete resolution of chest roentgenographic abnormalities without residual occurs in the majority of cases. In one series, only

TABLE 3: RADIOGRAPHIC FEATURES OF PRIMARY TUBERCULOSIS, NO. (%)

	Weber et al. ¹² (Children) N=83	Stead et al. ¹⁰ (Adults) N=37
Hilar Lymph Node		
Enlargement	80 (96)	17 (46)
Unilateral	67 (81)	16 (43)
Bilateral	13 (16)	1 (3)
Parenchymal Infiltrate	- (>75)	29 (78)
Upper lobes	upper lobes slightly	21 (72)
Middle lobe	more common than	2 (10)
Lower lobes	lower lobes	5 (17)
Cavitation	1 (1)	1 (3)
Atelectasis (R>L 2:1)	25 (30)	?
Dissemination	2 (3)	1 (3)
Pleural Effusion	8 (10)	14 (38)

32% of children with primary TB had residual scarring.¹² Resolution of abnormalities was slow, occurring over a period of 9 to 12 months. Calcification developed in parenchymal infiltrates in 17% between 3 and 30 months following diagnosis.¹² The relative infrequent calcification of the parenchymal lesion and hilar node suggest that routine chest roentgenography seldom will detect the "primary" complex (Ranke) that is felt to constitute reasonable evidence of primary TB. The primary complex also may be caused by histoplasmosis and although parenchymal calcifications in histoplasmosis tend to be larger (6 mm or more) and stippled, clear radiographic separation of primary complexes due to TB or histoplasmosis frequently is impossible.

Reactivation Pulmonary Tuberculosis

Reactivation or "post primary" TB almost always occurs in adults as a result of reactivation of a focus of infection acquired in childhood. The focus of reactivation usually is located in apical and posterior segments of the upper lobes; this predominate location of reactivation TB is related to the high oxygen tension (PO₂) in these segments, the result of high ventilation/perfusion ratios in upper lung zones. While the chest radiographic features of TB are highly varied, several patterns of roentgenographic abnormalities usually are seen and should alert the clinician to the possible presence of this disease (Table 4).

Consolidations/Cavities/Fibronodular Infiltrates: Patchy or confluent consolidation and lung cavities are seen in apical and posterior segments of upper lobes in over 85% of cases.¹⁵⁻¹⁷ The right upper lobe is involved more frequently (57% vs 43%) than the left upper lobe. Tuberculous cavities usually have a moderately thick wall. Air fluid levels seldom are seen. Cavities may not be apparent on plain

TABLE 4: CHEST RADIOGRAPHIC FEATURES IN REACTIVATION TUBERCULOSIS

Consolidation (patchy, acinar, confluent)	Tuberculoma
Fibronodular densities	Bronchiectasis
Cavitary infiltrates	Bronchostenosis
Bronchogenic spread	Tuberculous pneumonia
Miliary densities	Pneumothorax
Pleural effusion (empyema)	

TABLE 5: INITIAL CHEST RADIOGRAPHIC FINDINGS IN MILIARY TUBERCULOSIS

Author	No. of Patients	% with Miliary Pattern	% with Normal Film
Biehl (1958)	68	91	9
Proudfoot (1969)	40	48	30
Berger (1970)	14	71	29
Munt (1971)	64	93	7
Grieco (1974)	28	50	4
Totals	219	77	13

chest roentgenograms but visible on laminograms in 10-20%.⁸ Involvement of the superior segment of the lower lobes occurs in about 10%.^{15,16} An important clue in differentiating reactivation tuberculosis from other disease such as lung cancer is that TB rarely involves the anterior segments of upper lobes.^{16,17} In one study isolated anterior segment upper lobe TB was found in only 0.6% of cases.¹⁷

Another common radiographic finding is stranding or "fibronodular" infiltrates involving the apical and posterior segments of the upper lobes. Volume loss with elevation of the ipsilateral hilum is common and varying degrees of pleural "reaction" or "thickening" are frequently found.

Bronchogenic spread of TB may produce two distinct patterns. Multiple, small (3-6 mm) irregular densities ("acinar" shadows) may be present in lung zones adjacent to cavitory infiltrates or they may be seen in dependent lung zones, often in the contralateral lung. If bronchogenic spread is massive, tuberculous pneumonia, which may mimic consolidation due to bacterial infection such as *Streptococcus pneumoniae* (pneumococcal pneumonia) may result.

Miliary TB: About 5% of patients with TB will present with disseminated disease and frequently a chest radiographic pattern of diffuse "miliary" densities. The word miliary is derived from the Latin word *miliarius* (millet seed) and de-

scribes the usually small discrete but diffuse parenchymal densities whose average diameter is less than 2 mm. The bilateral, diffuse densities are caused by hematogenous dissemination of organisms. Frequently, the lesions are best seen by close inspection of lung between rib shadows or in the retrosternal air space. It should be recognized that the classic chest radiographic features of miliary TB may be absent and frequently neither the diffuseness nor the discreteness of lesions are initially apparent. The frequency of the miliary pattern on initial roentgenographic examination is presented in *Table 5*.

It is important to note that, among 219 patients with miliary TB, 13% had initial chest films interpreted as normal.¹⁸⁻²² The absence of chest roentgenographic abnormalities on admission to the hospital often leads to long delays in diagnosis and initiation of therapy. In one series five of six deaths from miliary TB were in patients

whose initial films were negative and the diagnosis of TB was not considered.¹⁸ Similar findings have been noted by others.^{7,20,22}

The miliary densities usually occur in the absence of parenchymal consolidation and cavitation. Occasionally, however, hematogenous dissemination may result from "seeding" of the blood stream from an area of typical upper lobe reactivation TB.

Rarely, miliary TB may cause diffuse alveolar infiltrates and hypoxemia consistent with the "Adult Respiratory Distress Syndrome" (ARDS). About eight cases have been described, with six fatalities.²³ Consumption coagulopathy was observed in all cases.

With proper antituberculous drug therapy, radiographic resolution will occur in the majority of patients with miliary TB by 16 weeks. Some improvement in the chest radiograph may be seen within three weeks.¹⁸

Tuberculous Empyema: Pleural effusion due to TB in adults often is associated with primary infection.¹⁰ Pleural disease, however, is not uncommon in reactivation TB. Pleural thickening adjacent to upper lobe cavitory infiltrates is common. Small, sterile effusions may be identified and, occasionally, tuberculous empyema develops. This usually is seen in patients with extensive, cavitory disease. Bilateral pleural effusions are very uncommon.

TABLE 6: UNUSUAL PULMONARY TUBERCULOSIS IN THE ADULT

	No. (% total) ²⁵ N=88	No. (% total) ²⁶ N=100	No. (% total) ²⁷ N=100
Normal film	-	-	3 (3)
Primary			
(node/effusion)	12 (14)	10 (10)	10 (10)
Tuberculoma	8 (9)	3 (3)	3 (3)
Lower lobe	6 (7)	8 (8)	4 (4)
Miliary	4 (5)	4 (4)	7 (7)
Pneumothorax			2 (2)
Total	30 (34)	25 (25)	29 (29)

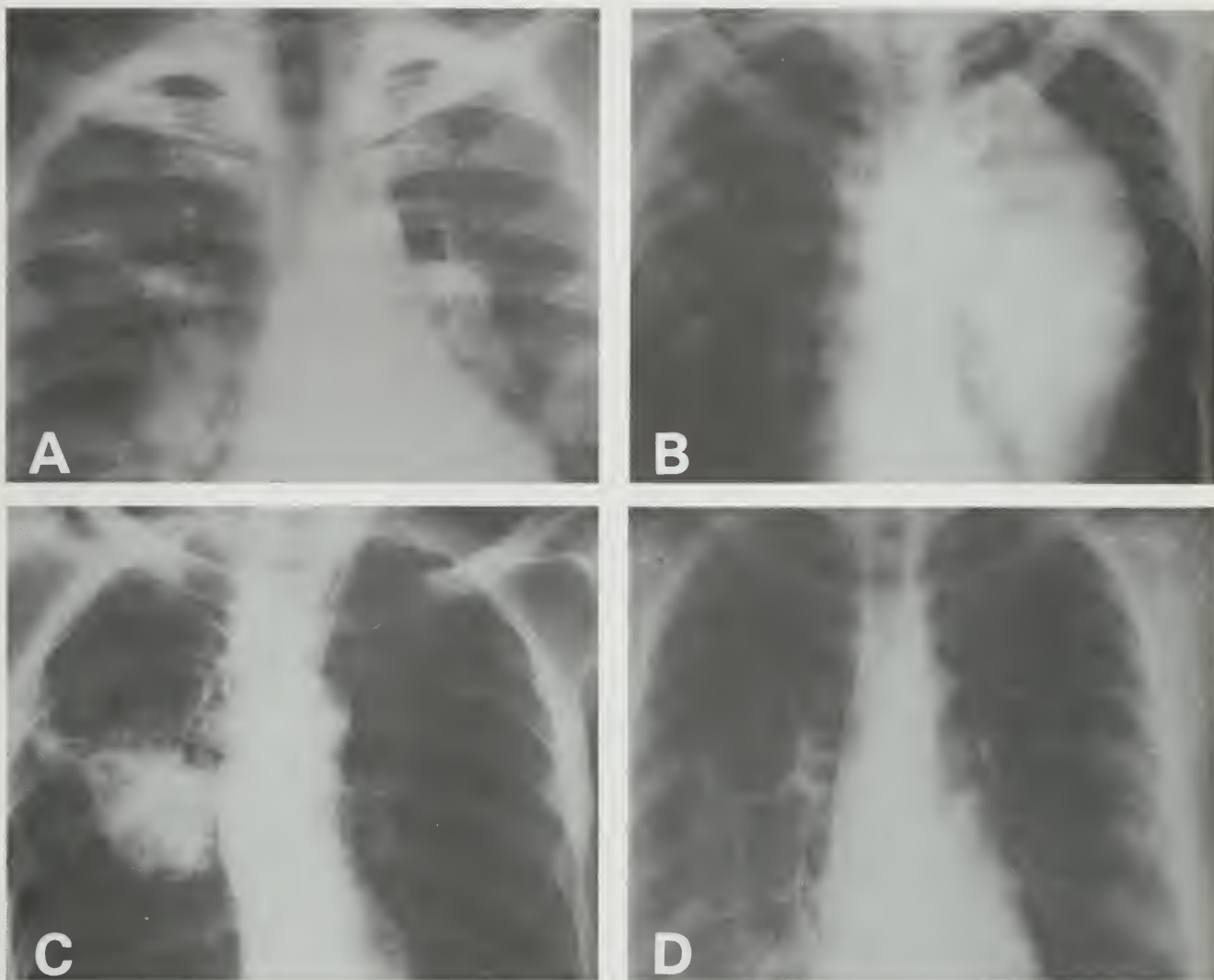


Figure 2 A-D: These figures illustrate unusual abnormalities caused by TB that were thought, initially, to be caused by other diseases. Please match each figure above with the appropriate clinical history that will be found in the CME Quiz in this issue (Page 299).

mon in TB but may be seen in about 5-10% of patients with disseminated or miliary disease.

Tuberculoma: These lesions may be seen in either primary or reactivation TB. They usually are in an upper lobe, and may be solitary lesions, 0.5 cm to over 4 cm in diameter. They may be associated with "satellite" lesions.²⁴ The so-called "target" lesion with central calcification is seen infrequently. The lesions tend to have smooth borders, but there is considerable variation in size and shape. For this rea-

son, radiographic diagnosis is not possible and biopsy is frequently needed to establish a diagnosis. The lesions may remain stable for long periods and may calcify. Slow increase in the size of tuberculomas may mimic lung cancer.

Tuberculous Bronchiectasis: Bronchiectatic changes are very common in reactivation TB, but their usual upper lobe location minimizes symptoms since bronchial drainage of secretions is promoted. Dilated airways with thickened bronchial walls often are seen with

careful inspection of the chest roentgenogram. Bronchograms seldom are indicated since non-surgical therapy is effective in the majority of patients with tuberculous bronchiectasis.

Pneumothorax is an uncommon but well described complication of TB and is thought to result from rupture of a subpleural tuberculous lesion into the pleural space. The bronchopleural communication may result in contamination of the pleural space with mycobacteria and tuberculous empyema. It was once

thought that spontaneous pneumothorax was due to TB, but it is now recognized that rupture of subpleural blebs is the etiology in the majority of cases.

Unusual Manifestations of TB in the Adult

The spectrum of pulmonary TB has changed somewhat in recent years. For example, miliary TB, once a disease of early childhood, is not uncommonly seen in adults. Primary TB with either pleural effusion and or parenchymal infiltrates and hilar or mediastinal node enlargement is being recognized with greater frequency in the adult population. These and other "unusual" manifestations of TB must be considered in the differential diagnosis. The frequency of less common chest radiographic findings in the adult with TB are listed in Table 6.²⁵ Note the presence of isolated lower lobe tuberculosis in about 8% of cases. This finding occurs more frequently in alcoholics and diabetics.

Rarely, the clinician will be faced with a positive sputum for TB but an entirely normal chest radiograph. Tuberculous involvement of lymph nodes adjacent to bronchi with sinus formation may explain some cases.²⁸

Figure 2 shows examples of TB with unusual radiographic features that dissuaded clinicians from including TB in the differential diagnosis.

Tuberculosis in the Immunocompromised Host

Tuberculosis may occur in patients undergoing cancer chemotherapy, high dose corticosteroid therapy, or in other immunocompromised states such as in patients with end stage renal disease.²⁹ Chest radiographic findings frequently are non-specific with interstitial changes, patchy consolida-

tion and pleural effusion. Cavitation in apical and posterior lung segments occurs less frequently than in typical reactivation TB. Therefore, a high index of suspicion for TB must be maintained when evaluating immunosuppressed patients.

Atypical Mycobacterial Disease

Some have suggested that atypical TB causes distinctive chest radiographic changes. However, most physicians do not feel that atypical TB can be distinguished radiographically or clinically from typical TB.

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SOS Stop Smoking Clinic: A One-Year Report on the Program At the Cummins Engine Company

G. H. MILLER, Ph. D.
Edinboro, Pa.

THE SOS STOP SMOKING Clinic program was introduced to salaried employees of the Cummins Engine Company on Aug. 20, 1979. Since most health professionals recognize a one-year period without smoking as the accepted criterion for success in a stop smoking clinic, this report deals with the results of the clinic at the end of one year (Aug. 20, 1980). An initial report on the clinic was published in the July 1980 edition of *THE JOURNAL* and dealt with the results of the first four-and-one-half months.

The SOS Stop Smoking Clinic is a program designed to assist smokers to quit permanently. The clinic consists of a minimum of 15 sessions which include the following: 1) Lectures by the director on the deadly impact of smoking on health with special emphasis upon research by the director as well as significant information culled from the research of international authorities. 2) Selected films to en-

courage non-smoking behavior. 3) Guest speakers from health associations. 4) Talks by former smokers. 5) Group counseling. 6) Individual counseling.

The clinic starts with five sessions during the first week to encourage participants to quit smoking and to prepare them for the withdrawal process which follows. The second week consists of three sessions; the third week, two sessions; and the fourth week, one session. These latter sessions are used to reinforce the former smoker's desire to remain a nonsmoker and to assist those who have not yet made the shift to a nonsmoking behavior pattern to do so. The other sessions are scheduled at the 1½-month time period, 2½ months, 3½ months, and 4½ months. These sessions are provided for members to gain additional confidence and to encourage recidivists to return to a nonsmoking pattern.

The SOS Clinic Program at Cummins Engine Company

Prior to the start of the clinic, arrangements were made with Cummins Engine Company to prepare for the clinics. The director of the clinic and the medical staff at Cummins developed a questionnaire which contained the following information: 1) The age at which the participant started to smoke. 2) The type of smoking (cigarettes, pipe, or cigar). 3) The amount

smoked daily. 4) The type and brand of cigarettes smoked. 5) The reasons for wanting to quit. 6) The record of the time periods of smoking and nonsmoking. 7) Depth of inhalation. 8) Length of cigarette smoked. 9) Other information on the medical history of the participant with specific emphasis upon respiratory problems. This form was sent to all salaried employees. Thirty-seven responded, indicating their interest in quitting.

When the director arrived at the Columbus, Indiana, complex of Cummins a few days before the start of the clinic, he placed all respondents into two evening clinics. Thirty-three of the original 37 decided to attend the clinic. All participants were interviewed to obtain additional information on their smoking histories and to determine some of their personal habits, their likes and dislikes. This information was used for counseling purposes with those who were having difficulties in quitting.

Those who enrolled in the clinic paid a fee which represented one-third of the cost of the clinic and the company paid the remaining two-thirds. The decision by management to pay the majority of the cost was made to assist and encourage their employees to eliminate the unhealthy habit of smoking. Management was made aware of research showing that nonsmokers have less absenteeism and sickness

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than smokers. This results in increased productivity for the company. The payment of the fee by those enrolled in the clinic was required to provide greater incentive for them to quit smoking because of the personal financial sacrifice. In addition, in giving up a certain amount of time during the evening, the individual made an additional sacrifice to aid in the motivation for quitting.

During the first three weeks, measurements were made of the carbon monoxide exhalation to determine whether the individual had actually stopped smoking. Some experimental work was done with blood tests, but these tests proved to be poor indicators of smoking behavior because of their inconsistencies and lack of agreement with tests of carbon monoxide exhalation. Additional measurements were made during the reinforcement sessions.

During the first few weeks, the director visited the participants at the plant to provide additional encouragement. After the first three weeks in which the participants met for 10 sessions, the director returned for five other reinforcement sessions. These occurred after a one-week interval, a two-week interval, and three one-month intervals. The attendance at these sessions was reduced by two-thirds due to the participants traveling and their inability to justify going to the clinic when they had convinced themselves that they would never smoke again. Those who started smoking at their previous levels did not attend any of the reinforcement sessions.

All members who did not attend the reinforcement sessions were interviewed to determine their nonsmoking behavior and problems which arose regarding their withdrawal from smoking. If they had maintained their nonsmoking behavior, they were encouraged to

continue. If they had started smoking again, they were asked to provide the underlying conditions in which they started to smoke again. For the latter cases, arrangements were made for personal interviews in order to provide suggestions for the smoker to return to non-smoking behavior.

Due to the economic recession which curtailed many industries in the USA, no further meetings were held despite the recommendation of the director for continuous monthly or bimonthly reinforcement sessions.

At the end of August, the members who attended the clinics were interviewed, provided they had reported nonsmoking behavior or were still in the "off on and on" mode. Those returning to their previous levels of smoking were not interviewed. During the interviews the members, as well as their spouses, were asked about the other participants in the clinic to check on the accuracy of their reported nonsmoking behavior. This technique was used to discover those who maintained that they had stopped smoking but would not report this information. In addition, most of the participants were interviewed by the Medical Department at Cummins to determine if they were still smoking. The results of both surveys gave approximately the same results. All members who were identified as recidivists by spouses or other participants were eliminated from the classification of successful nonsmoker even though they told the director or medical staff that they had quit smoking. These members were placed in the category of still trying to quit since there were few reports of their smoking at work or in the house.

Results

Based on the analysis of the interviews, the following results were obtained:

- The smoking behavior of the 33 members of the clinic are classified as follows:

- Six or 18% were back to full-time smoking.

- Nine or 27% are still trying to quit or are smoking off and on.

- Eighteen or 55% reported that they are not smoking.

- Five members of the clinic reported that they started smoking again during the last few months of the clinic. Three of the participants indicated that reinforcement sessions would have made the difference in their not returning to smoking.

- One member reported smoking again because of gaining too much weight. Three other members gave weight gain as a contributing factor.

- Those most likely to be unsuccessful were the participants who had smoking wives, had been to hypnotists, or had used nicotine reduction devices.

Discussion

Although a 55% success rate is excellent compared with the usual rate of 10 to 30%, it would appear from the interviewing that additional reinforcement sessions may have helped more participants to succeed. While their comments may be mere rationalization on the part of the unsuccessful, it should be realized that one of the identifying characteristics of the Alcoholics Anonymous group is that continuous meetings are used to provide their members a greater chance of continued success. Thus, additional monthly meetings should be incorporated into future clinics. Despite the fact that all members who are successful do not attend these reinforcement clinics, these additional meetings are valuable for certain members who need constant reinforcement.

Increased weight was a factor reported by a number of the participants as a reason for returning to smoking although the director had given instruction in techniques dealing with the problem of weight control. It appears that the development of the discipline necessary to offset a gain in weight may be an additional problem for some of those who want to quit smoking.

There were a number of participants who had smoking wives. The analysis showed that these men were less successful compared with those who had nonsmoking spouses. In certain instances the director was able to counsel wives of the participants to quit smoking along with their husbands. In these cases both succeeded. Thus, the

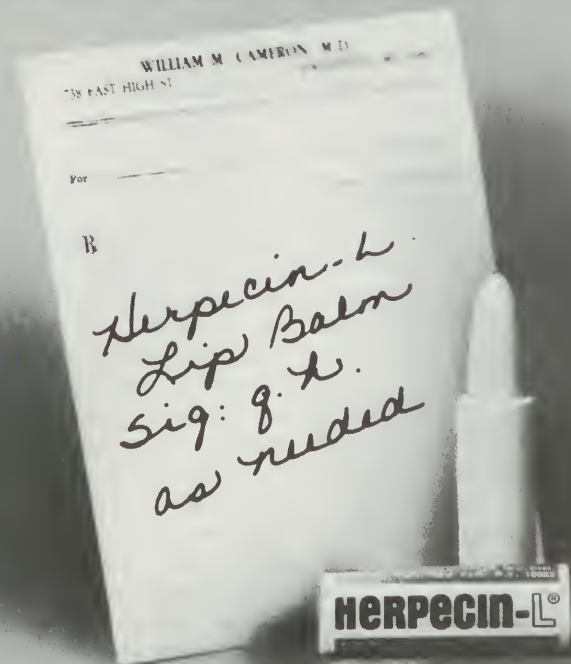
best technique for instruction of stop smoking clinics is to have both spouses enrolled in the clinic if both of them smoke.

The least successful of all participants were those who had been hypnotized unsuccessfully and those who used nicotine reduction devices and failed. Their failure rate was so high that additional techniques should be developed to handle these difficult cases.

During the interviewing of the participants, a few of them noted an increase in tension brought about by the recession in which their friends had been laid off. These added tensions and frustrations brought about by this situation seemed to have a definite negative impact upon those trying to maintain their nonsmoking pattern.

Even though the success rate may have been higher under more favorable conditions, the value to the company brought about by the success of their employees who quit is great. A few participants reported that other employees in their working area quit because they had quit. Thus, the bandwagon effect is observed as a consequence of stop smoking clinics. In addition, the company reaps extra benefits since the new nonsmokers will have less absenteeism and fewer cases of sickness. Also, they increase productivity by the elimination of the time it takes to light up and smoke. Thus, the company that sponsors successful stop smoking clinics will reap the benefits of increased productivity that will greatly surpass the costs of the program. ■

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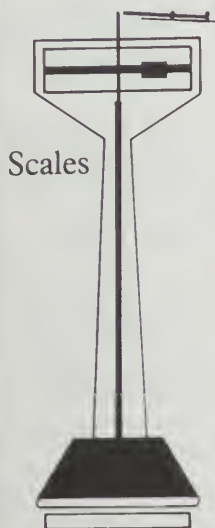


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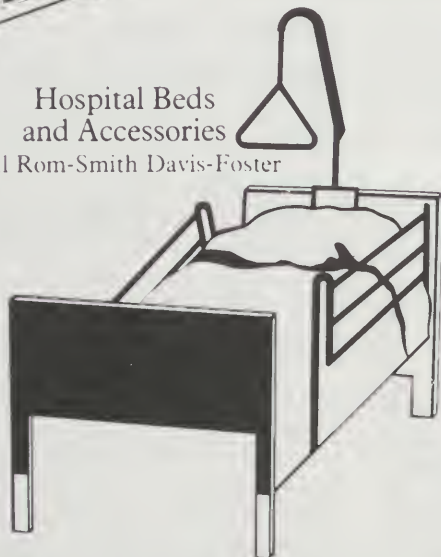


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Larry L. Throneburg
Director, Data Processing (I-MEDIC)

SINCE LAST YEAR, Larry Throneburg, a recent Army retiree, has been director of data processing for I-MEDIC (Indiana Medical Education and Developmental Information Center). I-MEDIC, organized as a for-profit corporation in May 1978, is totally owned by ISMA.

Larry's position involves formulating, implementing and maintaining the data systems contractually agreed upon, as well as those identified by the I-MEDIC board of directors. In addition, he represents the corporation as a technical consultant.

The 44-year-old native of Anderson completed his military career in 1980, having served with the Army's Special Forces (Green Berets). He is a parachutist and earned the Combat Infantryman's Badge in Vietnam. He also served in Japan, Panama, Ethiopia, the Philippines, Iwo Jima, Honduras and Malaysia, and studied Spanish and Persian.

Larry holds an Associate of Arts degree in business administration, a Bachelor of Science degree in social sciences, and soon will complete postgraduate studies toward a Master of Science degree in administrative services.

He is a member of the Special Forces Association, American Hang-Gliding Association, Professional Association of Diving Instructors, the American Society for Public Administration and the Laubach Literacy Council.

Larry and his wife Karla live in Brownsburg with their daughter, Kristi, 12. He is a member of Cornerstone Christian Church and a sponsor of the Ekklesia Youth Group. Larry also is a coach for the Brownsburg Girls Softball League.

Meet Your ISMA Staff



Michael Huntley
Special Assistant to the Executive Director

SHORT-TERM special projects and a variety of other, more predictable tasks keep Michael Huntley pretty busy.

Mike's face has become known to many physicians throughout the state because he's able to be in more places than most people. That's because he's a pilot and has served ISMA in that capacity many times.

Mike joined the ISMA staff in 1977 after working for the Florida Department of Health and Rehabilitative Services—he was a parole officer primarily. On that basis, he spent most of his time getting Indiana's "Jail Project" off and running. More recently he has graduated to serving as executive director of the Indiana Society of Internal Medicine and serving as ISMA's representative to the Indiana State Board of Health's Manpower Advisory Committee.

The East St. Louis, Ill., native also has his fingers in other ISMA "pies." He has been managing the recently acquired Harshman Building at 3843 N. Meridian St., Indianapolis, and he's been supervising the ISMA Membership Department and the I-MEDIC program. During his "spare" time he staffs the Commission on Medical Services and the subcommissions on aging and insurance.

Mike, who's 36, is a 1967 graduate of Southern Illinois University, Carbondale, where he earned a B.A. in sociology. He and his wife Gail live in Indianapolis with their four-year-old son Sean.

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche)® , please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium®

diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

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CME QUIZ

Pulmonary Tuberculosis

CONTINUED FROM PAGES 283-290

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.

1. Review *Figure 1 A-D* and write the letter (A,B,C, or D) that identifies the chest roentgenogram beside the appropriate clinical history below.

a. A 19-year-old woman recently was exposed to a grandmother with active pulmonary TB. She complains of intermittent fever, right chest pain, and minimal cough for two weeks. Examination unremarkable except for temperature 101°F.

b. A 54-year-old previously healthy man presents with a 10-day history of fever, weight loss and a non-productive cough. Examination normal except for temperature of 102°F.

c. A 36-year-old woman alcoholic with a four-month history of night sweats, weight loss, and cough productive of yellow-green sputum. Temperature 103°F. Rhonchi, rales, and cavernous breath sounds on chest examination.

d. A 17-year-old asymptomatic woman referred to physician for abnormal x-ray that was taken as part of preemployment examination. Examination normal.

2. Review *Figure 2 A-D* and write the letter (A,B,C, or D) that identifies the chest roentgenogram beside the appropriate clinical history below.

a. A 35-year-old IV drug abuser with one-week history of fever, productive cough and chest pain. Temperature 104°. Chest examination abnormal. Multiple needle tracts noted in antecubital fossae. Admitting diagnosis: Staphylococcus pneumonia.

b. 29-year-old man with one-month history of dry cough, some weight loss, and fatigue. Examination normal. Admitting diagnosis: Sarcoidosis. R/O Hodgkin's disease.

c. A 63-year-old chronic smoker with COPD and previous history of treated right upper lobe TB presents with two-month history of weight loss, occasionally productive cough. Examination reveals abnormal breath sounds over right upper lobe. Admission diagnosis: bronchogenic carcinoma.

d. 40-year-old woman with three-week history of productive cough, 10 lb. weight loss that she attributed to heavy alcohol consumption. Examination unremarkable except for several dental caries and temperature of 102°F. Admission diagnosis: Anaerobic lung abscess.

3. One of the following statements about the diagnosis of TB is false:

- a. More than 90% of patients with TB have an abnormal chest roentgenogram.
- b. The presence of an upper lobe, posterior segment cavitory infiltrate is diagnostic for TB.
- c. Unilateral hilar adenopathy is the most common chest radiographic abnormality in primary TB.
- d. Bilateral pleural effusions rarely are due to TB.

4. Which of the following statements concerning the radiologic evaluation of TB is false?

- a. Chest laminography may show nodules or cavities not visible on routine chest films in about 10-20% of patients with pulmonary TB.
- b. Oblique views of the chest are helpful in evaluating pleural disease.
- c. The apical lordotic chest film is particularly useful for separating upper lobe densities from rib and clavicle.
- d. The lateral decubitus chest film rarely is needed since one always can identify free pleural fluid on an upright PA roentgenogram.

Following are the answers to the CME quiz that appeared in the April 1981 issue of THE JOURNAL: "Nonthoracotomy Diagnostic Techniques," by Mitchell L. Rhodes, M.D.

- | | |
|------|-------|
| 1. d | 6. d |
| 2. b | 7. b |
| 3. c | 8. a |
| 4. a | 9. c |
| 5. c | 10. d |

April CME Quiz Answers

Answer sheet for Quiz: (Pulmonary TB . . .)

- | | | | |
|-----|---------|-----|---------|
| 1a. | A B C D | 2c. | A B C D |
| 1b. | A B C D | 2d. | A B C D |
| 1c. | A B C D | 3. | a b c d |
| 1d. | A B C D | 4. | a b c d |
| 2a. | A B C D | 5. | a b c d |
| 2b. | A B C D | 6. | a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for credit for this month's quiz, send your completed, signed application before June 10, 1981, to the address appearing at the top of this page.

CONTINUED ON PAGE 318

WILLIAM M. DUGAN, JR., M.D.
Clinical Oncology Center
Methodist Hospital of Indiana, Inc.

New information from
Indiana Division
American Cancer Society, Inc.
4755 Kingsway Dr., Suite 100
Indianapolis 46205

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Announcing . . .

"2nd National Seminar on Community Cancer Care," Sept. 25, 26, & 27, 1981. It will be held at the Hyatt Regency in Indianapolis. Sponsored by Methodist Hospital Graduate Medical Center and the Clinical Oncology Program.

For more information or if you would like to be on the mailing list, please contact the Continuing Medical Education Office. Contact person will be Dixie Mattingly, Methodist Hospital of Indiana, 1604 N. Capitol Ave., Indianapolis 46202.

NCI Patient Materials Catalog

This catalog is for the use of physicians, nurses, and other health professionals. It offers printed material for you, for your cancer patients, and for their families.

The catalog is divided into three sections:

Materials for Adult Patients and Their Families

1. Eating Hints-Recipes and Tips for Better Nutrition During Cancer Treatment.

This 96-page booklet contains tips for coping with typical treatment and related problems associated with eating: nausea and vomiting, loss of appetite, mouth sores and dryness, intestinal distress, and fatigue. Also, includes many simple recipes for nutritious foods which will be palatable during this uncomfortable time. The booklet was developed by the Yale Comprehensive Cancer Center and reprinted with its permission by the National Cancer Institute. (Includes CIS phone numbers.)

2. Radiation Therapy and You—A Guide to Self-Help During Treatment.

This 24-page booklet explains both external and internal radiation therapy, possible side effects, and what to do about them. Includes a

special section for those receiving treatment to the head and neck. The booklet is a cooperative venture with the Michigan Cancer Foundation/Henry Ford Hospital and the Yale Comprehensive Cancer Center. (Includes CIS phone numbers.)

3. What You Need to Know About Cancer.

A 19-page pamphlet containing basic information about cancer and its treatment. Includes sample questions for patients to ask their physicians, sources of assistance, a brief explanation of cancer research, and a glossary of terms. (Includes CIS phone numbers.)

4. Why Do You Smoke?

A pamphlet for use by physicians with patients who smoke and want to quit. Contains a self-test to help patients understand the specific reasons why and the occasions when they smoke, and understanding that they can make quitting easier.

Materials for Your Patients and Their Parents

1. Hospital Days—Treatment Ways.

A 28-page hematology/oncology coloring book. Contains 23 line drawings that depict common procedures and situations encountered by children with cancer. A "Guide to Illustrations" helps parents, health professionals, and older siblings use the pictures as springboards for discussion with the child about his thoughts and feelings. Developed by the Ohio State University Comprehensive Cancer Center with Children's Hospital in Columbus, Ohio, and reprinted by NCI.

2. Feeding the Sick Child.

A 68-page booklet that reflects the experiences of a mother in caring for a daughter with acute leuke-

mia. The booklet addresses: feeding children who are finicky eaters; special problems of feeding children with cancer; general nutritional guidelines; and recipes that are nutritious as well as appealing to children. Also, includes a list of child-oriented cookbooks.

Professional Reference Materials

1. Cancer Treatment—An Annotated Bibliography of Patient Education Materials.

This 31-page bibliography includes 85 citations of materials available from a variety of sources which explain the various modalities of cancer treatment.

2. Services Available to Cancer Patients.

An article written to help the physician assist cancer patients with psychological, social and economic problems related to having cancer. A chart is provided, showing which major national and regional organizations offer services for persons with cancer, their families, and friends. Reprinted from the *Journal of the American Medical Association*. (Includes CIS phone numbers.)

3. NCI Patient Materials Folder.

An expandable 10" x 12" folder for use by health professionals for convenient storage of samples of patient materials. Fits into a desk drawer or stands on a shelf for easy reference.

To order this catalog, write to: The National Cancer Institute, Office Of Cancer Communications, Building 31, Room 10A18, Bethesda, Maryland 20205.

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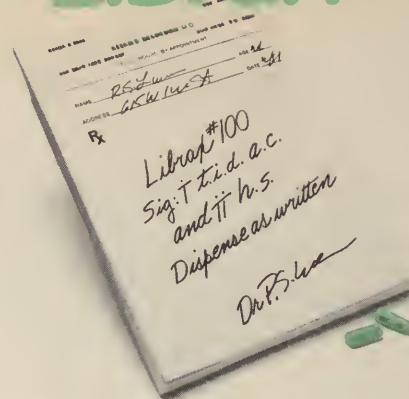
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Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows. "Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis. Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium[®] (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.


Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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Antianxiety/Antisecretory/Antispasmodic

Librax has been evaluated as possibly effective for this Indication. Please see brief summary of prescribing information on facing page.

*Photograph of simulated gastric hypersecretion

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.



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...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

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Tenuate® Dospan® ^{IV} _c (diethylpropion hydrochloride NF)

75 mg. controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

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The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

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And it's responsible medicine.**

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(diethylpropion hydrochloride NF)

Tenuate Dospan® ^{IV}
(diethylpropion hydrochloride NF)
controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdose. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in the evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in the morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phenolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of January, 1980

MERRELL-NATIONAL LABORATORIES INC.
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Direct Medical Inquiries to:
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Cincinnati, Ohio 45215
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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al: A comprehensive review of diethylpropion hydrochloride. In *Central Mechanisms of Anorectic Drugs*, S. Garattini and R. Samanin, Ed., New York. Raven Press, 1978, pp. 391-404.

PUBLIC HEALTH NOTES

The Indiana State Board of Health staff has provided laboratory services as diagnostic aids to physicians since the agency's founding in 1881, or shortly thereafter.

In recent years, the work of the laboratory in public health matters has taken on new significance. Here in Indiana, as well as in other states throughout the country, the state laboratories coordinate their activities with the Centers for Disease Control (CDC) in Atlanta, a federal agency with highly technical expertise.

As an example of these efforts you will recall the much publicized outbreak of respiratory illness among American Legionnaires at a July 1976 convention in Philadelphia. In that outbreak, there were 182 cases and 29 deaths. Tests for known respiratory pathogens were negative and no other causative agent could be found. Investigation of this dilemma continued and several months later, workers at CDC in Atlanta isolated a previously unknown bacterium from lung tissue, the elusive agent of "Legionnaires' Disease." It was found to be a fastidious, gram-negative bacillus which, until that time, had not been cultured and identified, nor recognized as a pathogenic agent. It did not fall into any known bacterial classification and a new genus and species was proposed, *Legionella pneumophila*.

The CDC laboratory developed special culture media for isolation of the *Legionella* bacterium, perfected a direct fluorescent antibody (FA) technique for detection of the bacillus in tissues and body fluids, and developed an indirect fluorescent antibody (IFA) test to measure serum antibody response.

As research progressed with the newly isolated bacillus, the disease was found to be widespread. Sporadic cases and outbreaks, unre-

lated to Philadelphia, were found here and abroad.

The first Indiana case of Legionnaires' Disease was identified in February 1977, made retrospectively in a fatal pneumonia case by IFA tests on paired sera retrieved from frozen storage at the State Board of Health virus laboratory. Sera had been collected at onset of illness and post-mortem, 12 days later. IFA serum titers against *Legionella* were 1:16 and 1:256, respectively, showing a 16-fold increase in antibody. Subsequently, the number of specimens for *Legionella* tests increased until it became a major item in the laboratory workload. Also, the outbreak of Legionnaires' Disease at the Indiana University Bloomington campus in 1978 and the downtown Indianapolis incident in 1979 generated many specimens.

Between February 1977 and June 1980, 2,654 sera were submitted from Indiana through the virus laboratory to CDC for *Legionella* IFA tests; 61 Indiana cases were detected with a diagnostic four-fold or greater rise in titer, and 85 cases were found with significantly elevated antibody (>1:256). Of 39 specimens submitted to CDC for bacterial culture and/or direct FA tests, the *Legionella* bacillus was cultured from five specimens (4 lung tissue, 1 sputum), and four fixed lung tissue specimens were positive for *Legionella* by direct FA tests.

Coincidental with requests for *Legionella* tests was the increased number of cases found with seroconversion to *Mycoplasma pneumoniae*, the agent of primary atypical pneumonia. As a surveillance procedure for respiratory infections, sera submitted to the State Board of Health virus laboratory for *Legionella* testing were screened with a battery of viral-mycoplasmal antigens. In the six years prior to the Legionnaires' outbreak, the ISBH

laboratory recorded an average of 17 *M. pneumoniae* sero-conversions per year. In fiscal years 1977 through 1980, the annual totals increased to 33, 84, 200, and 150 cases, respectively. This increase probably reflected the interest in Legionnaires' Disease and the greater effort to submit paired serum specimens from pneumonia cases.

Several viral agents were also implicated in suspected cases of Legionnaires' Disease. Serological tests were negative for *Legionella* and 26 respiratory cases, but showed four-fold and greater increases in antibody titer to: influenza virus, type B (17 cases); respiratory syncytial virus (5 cases); parainfluenza virus, type 1 (2 cases); parainfluenza virus, type 3 (1 case); and cytomegalovirus (1 case).


The laboratory diagnosis of Legionnaires' Disease is still developmental, and standardized commercial reagents are not yet available. As many as four serogroups of *L. pneumophila* have been identified, complicating screening for this disease. Also, additional *Legionella* species have been recognized and researchers at CDC are experimenting with these agents.

Several more years may pass before the full story of the *Legionella* bacillus and its role in human disease is completely understood; but the various laboratory workers involved will continue to work in this area and others as the need develops, serving physicians and their patients through them. Every physician in Indiana is now receiving a monthly newsletter entitled INDIANA EPIDEMIOLOGY REPORT from the Indiana State Board of Health. It is in this way, and through this column, that we hope to provide to you directly, timely and pertinent information on public health matters.



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CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.



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FUTURE FILE

Advanced Echocardiography Program

"Advanced Echocardiography" is the subject of an Extramural Program to be presented by the American College of Cardiology Sept. 9 to 11 at the Hyatt Regency Indianapolis. Krannert Institute of Cardiology is co-sponsor. Dr. Harvey Feigenbaum will be the director.

Write to Registration Secretary, American College of Cardiology, 9111 Old Georgetown Road, Bethesda, Md. 20014.

ENT Symposium for Family Physicians

An Ear, Nose and Throat Symposium for the Family Physician will be held July 31 through Aug. 2 at The Lodge, Vail, Colo.

The symposium has been approved for credit by the American Academy of Family Practice, the American Osteopathic Association, and the Colorado Medical Association. It is sponsored by the Associates of Otolaryngology in affiliation with the combined medical staff of Porter Memorial Hospital and Swedish Medical Center.

For details, contact Lisa Lee, 950 E. Harvard, Suite 500, Denver, Colo. 80210. Tel: (303) 744-1961.



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Correctional Institutions Conference

The AMA announces its Fifth National Conference on Medical Care and Health Services in Correctional Institutions. The Conference will meet Oct. 30 and 31 in the Downtown Marriott Hotel, Chicago. The registration fee will be about \$80.

English Class for FMGs

"Improving English Pronunciation for Foreign Medical Graduates" is the subject of an AMA seminar to be conducted on Saturday, July 18, at the AMA headquarters, 535 N. Dearborn St., Chicago.

Registration fees are \$130 for AMA members, \$170 for non-members and \$80 for residents. The fee includes nine practice tapes and a 134-page manual. Registration is limited to 20 persons. Early registration is requested. Write to 1981 AMA Seminar in care of AMA.

Cancer Therapy Meeting in St. Louis

"Current Concepts in Cancer Therapy" is the subject of a future CME Conference at the Washington University School of Medicine in St. Louis Dec. 10-12. It is rated at 19 hours credit by AMA, the AAFP and the AOA.

Details are available from the Office of CME at the medical school, Box 8063, 660 S. Euclid, St. Louis, Mo. 63110, or by phoning (314) 454-3873.

Emergency Medical Care Seminar

The 11th Annual Emergency Medical Care Seminar will be conducted by the Kentucky Medical Association June 9-11 at the Executive West Motel in Louisville. The seminar, open to physicians, nurses, EMTs and paramedics, is approved for Category 1 CME credit and for 12½ prescribed hours by the AAFP.

Registration is \$15 per day, which includes materials, coffee breaks and luncheons. Register with KMA, 3532 Ephraim McDowell Drive, Louisville 40205, Attn: Jean Wayne. Payment should accompany registration.

Spina Bifida Multidisciplinary Seminar

The Children's Memorial Hospital, Chicago, will host a national multidisciplinary seminar on spina bifida Sept. 24-26.

Various internationally known specialists in orthopedics, neurosurgery, urology and pediatrics will serve as guest lecturers.

For information, contact David G. McLone, M.D., Children's Memorial Hospital, 2300 Children's Plaza, Chicago 60614. Tel: (312) 649-4373.

Health Care Quality Assurance

"Quality Assurance in Patient Care—What Works?" is the subject of a Conference on Health Care Quality to be conducted at the Bond Court Hotel, Cleveland, June 22-24. It is sponsored by the Association for Healthcare Quality to which inquiries may be directed at Case Western Reserve University School of Medicine, Cleveland 44106, telephone (216) 368-3737.

National Forum on Computers, Health

"Minicomputers and Microprocessors in Medical Practice Management" will be the subject of a workshop to be conducted by the National Forum on Computers and Health and by the Society for Computer Medicine in Philadelphia June 4-5.

To register, call (800) 336-4776. For further information, call (202) 298-8160 and ask for Mary Elizabeth. The address of the Forum is 621 Duke St., Alexandria, Va. 22314.

Occupant Restraint Seminar

All methods of passenger safety restraint systems for automobiles will be discussed by experts at the International Symposium on Occupant Restraint to be held June 1 to 3 at Hotel Toronto, Toronto, Ontario, Canada. For information write AAAM, P.O. Box 222, Morton Grove, Ill. 60053.

Office Management Workshops

Five workshops in medical office management will be conducted by Conomikes Associates at the Chicago Radisson Hotel during the week of July 6-10. The subjects are limited to one day each.

Monday will be on "Computers in Medical Practice," Tuesday on "Patient Flow Management," Wednesday on "Financial Management," Thursday on "Personnel Management," and Friday on "Advanced Leadership & Management Techniques."

The fee for each day is \$95. The courses are guaranteed to be helpful and are backed by a money-back guarantee. Registration may be accomplished by mail to Conomikes Associates, Inc., 4270 Promenade Way, Marina del Ray, California 90291, or by calling toll free (800) 421-6512.

ACIP Annual Convention Slated

The sixth annual convention of the American College of International Physicians will be held Aug. 20-23 at the Holiday Inn, Lake Shore Drive, Chicago.

Dr. Felix Millan of East Chicago, Ind., will be installed as president of the college. Scientific sessions will meet on three successive days during morning hours. Category 1 CME credits for 12 hours will be awarded.



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BOOK REVIEWS

Current Obstetric and Gynecologic Diagnosis & Treatment, 3rd Ed

Ralph C. Benson, M.D., Ed. Copyright 1980, Lange Medical Publications, Los Altos, Calif. 1001 pages, paperback, \$21.

The Lange publications are very popular among medical students because the well-organized, practical information presented in them suits their needs for economical use of time and money. For the same reasons busy physicians are using them more and more extensively.

Dr. Benson, Emeritus Chairman, Dept. of Obs.-Gyne at University of Oregon Medical School, has written sections on Psychologic Aspects of Gynecologic Practice, Multiple Pregnancy, Medical and Surgical Complications During Pregnancy himself. Thirty-nine other distinguished gynecologists, most of them department chairmen at other medical schools, and one lawyer, deal with the other topics. OB/GYNE specialists will doubtless welcome this updated, practical volume.

All practicing physicians will find it useful in managing female patients of adolescent and child-bearing age. Most primary physicians are familiar with the pub-

lications of Ernest Jawetz of the University of California School of Medicine. His chapter on use of antibiotics is clear and authoritative, as we have all come to expect.

As an internist, I was surprised and a little alarmed to see in the chapter on Prenatal Care the list of drugs which, if used in the first trimester of pregnancy, carry a definite risk of causing fetal abnormalities. Included in the list in which the author, Dr. Kenneth Niswander, considers that the risk outweighs expected benefits are acetazolamide, alcohol, phenytoin, podophyllin, streptomycin, tetracycline and warfarin along with more commonly recognized drugs.

The list of infections posing a threat during the first three months is also impressive. In addition to rubella the author lists among others, rubeola, cytomegalovirus, herpes simplex, mumps, Western equine encephalitis, hepatitis and vaccinia. I also found the chapters on pelvic infections, medical and surgical complications during pregnancy and endometriosis of considerable interest.

Considering the comprehensive coverage of all aspects of obstetrics and gynecology, the very practical presentation and the moderate cost of this volume, I am glad to recommend it as a true bargain, well worth more than a casual perusal by all practicing physicians.

PAUL S. RHOADS, M.D.
Richmond
Internal Medicine

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Inflammatory Bowel Disease

2nd Edition, Kirsner and Shorter. Copyright 1980, Lea & Febiger, Philadelphia. 693 pages, illustrated, \$50.

Although the title might lead one to expect that the whole gamut of inflammatory disorders of the gut including amebiasis, shigellosis, lymphopathia venereum, etc. might be dealt with in some detail, this volume is concerned chiefly with idiopathic ulcerative colitis and Crohn's disease. The others are mentioned chiefly in differential diagnosis or as possible precursors of the two major chronic inflammatory conditions.

All of the enigmas of these two difficult clinical entities have not been solved. However, if one studies the text in any detail he can count on being brought up to date on most everything important that is known about them, and will undoubtedly learn some new and useful facts. The similarities and sharp differences shared between chronic ulcerative and Crohn's enteritis-colitis are brought out clearly, particularly in the chapters on pathologic changes, clinical features and surgery for the two disorders.

In the chapters on etiology the various areas that have been explored-exogenous agents such as chemicals in foods, bacteria and their products; viruses; vascular, neurogenic and immune mechanisms; climatic and socio-economic factors and the like are re-

viewed. In these and all the other chapters extensive bibliographies are supplied.

Since so many poorly understood systemic disorders have been proven ultimately to have auto-immune features, it is understandable that lengthy discussions on the immunological features of inflammatory bowel disease appear in this volume. The extensive literature reviewed in these chapters is controversial. There seems to be no consensus on the mechanism of the insults to the mucosa in ulcerative colitis and the deeper layers of bowel wall in Crohn's disease. However, the frequent association of these lesions with changes in IgG, IgA and sometimes IgM and IgE proteins, the concomitant appearance of such manifestations as Coombs' positive anemias and arthritis, and the observation that symptomatically these patients improve with steroids but seldom have permanent recovery all point to some kind of continuing immunologic assault playing a significant role.

Dr. Sherwood Gorbach, in the excellent chapter on the microflora of the gut in inflammatory bowel disease, speculates that the intestinal mucosa may be breached by one or more of a variety of intestinal pathogens such as *Shigella*, gram negative or staphylococcus toxins, viruses, parasites, etc. Then, because of inadequate or misdirected immune response plus the presence always of possible pathogens in the bowel, the original injury either does not heal or spreads more widely throughout the gut. He holds out the possibility that microorganisms may still be found specific for these two inflammatory disorders.

To date, Koch's laws have not been fulfilled in any of the multitude of studies in which some bacterium or virus has been proposed as the specific etiologic agent. In his discussion he reminds us again that obligate anaerobes outnumber aerobes 1,000 to 1 in the gut, a fact always to be kept in mind when the intestinal microflora gain access to the peritoneal cavity. He makes the interesting observation that salicylazosulfapyridine (Azulfide) has very little activity against intestinal microorganisms. Many researchers share his opinion that its helpful effects are due to the anti-inflammatory property of its salicylate metabolites on the bowel wall.

Most of us have been aware that sufferers from long standing ulcerative colitis have a higher risk of developing colonic cancer than those free of the disease. However, the statement of Dr. Walter Thayer that about half of the victims of ulcerative colitis who have had widespread lesions for 25 years or more will develop cancer is rather startling. Although granulomatous disease of the colon has been widely recognized in only the past two decades, several studies have shown that cancer in these patients is 20 times more frequent than in normal controls of the same age. The question of how the outcome of pregnancy is affected by the concomitant occurrence of inflammatory bowel disease comes up frequently. In Kirsner's book the opinion is given that neither of the two disorders poses an added

risk to the fetus unless the process begins during pregnancy.

All of the other perplexing aspects of inflammatory bowel disease are discussed adequately in the Kirsner and Shorter text. Although solutions to all of the problems are not offered, every practitioner trying to deal with them will find this book a great help.

PAUL S. RHOADS, M.D.
Richmond
Internal Medicine

Sodium in Medicine and Health

Edited by Campbell Moses, M.D. Copyright 1980, Reese Press, Inc., Baltimore. 126 pages, \$7.

Sodium is an essential dietary mineral. Besides its intrinsic value, sodium facilitates transport of other nutrients like sugars, amino acids, and vitamins. And, as Plutarch once remarked, "First there is salt, without which practically nothing is eatable."

Indeed, in our efforts to improve the taste of American food, most U.S. citizens eat 10 to 12 grams of salt per day. Is this too much? In February 1977 the Senate Select Committee on Nutrition and Human Needs recommended that we all reduce sodium chloride intake to about 3 grams per day. In December 1977 they increased the limit to 5 grams per day. In December 1978 the limit was clarified to mean 5 grams more than the 3 grams that naturally occur in food. Unfortunately, the healthful features of these limits have never been proven. (More extreme salt restriction, however, can lower blood pressure in patients prone to be hypertensive.)

For normal people, then, "as with so many 'things' in nutrition, moderation seems to be the best path to follow" in regard to salt consumption. Certain patients of course, must limit salt intake. These are well spelled out in this manual, as are those that must also limit their water intake. But forcing normals to reduce salt intake can even have undesirable effects. The impaired growth and development associated with chloride deficient baby formulas is a case in point. Sodium pathophysiology, its absorption, transport, and excretion, as well as its role in adaptation to high environmental temperatures, also are well covered. Myths, such as the belief that cardiovascular disease is related to the sodium content of drinking water, are debunked.

Co-sponsored by the Water Quality Association and the Salt Institute, this monograph nevertheless presents a balanced discussion. Experts on the relationship of sodium to health, such as Fredrick J. Stare, M.D., provide a fine evidentiary basis and are scrupulously even-handed in their reporting of the issues.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery



AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

AMA Auxiliary Convention Set for June 7-10

THE PHYSICIAN'S MARRIAGE, stress management, medicine and the economy, and everything you want to know about auxiliary programs will be featured at the AMA Auxiliary Annual Convention, June 7-10, Drake Hotel, Chicago.

Sponsored in cooperation with the AMA Council on Continuing Physician Education, two of the programs will offer Category 1 credit to physicians. "Managing 20th Century Stress," the theme for the third phase of the AMA Auxiliary's Shape Up for Life campaign, will be discussed by Dr. Robert S. Eliot, director of the University of Nebraska Medical Center's Cardiovascular Center. To be held at 12 noon on Tuesday, June 9, the program is approved for one hour Category 1 credit for physicians. Luncheon tickets are \$17.50.

Three hours of Category 1 credit for physicians have been approved for the symposium, "The History of a Medical Marriage," to be held Tuesday, June 9, at 3 p.m. Conducting the symposium will be Dr. Gordon H. Deckert, professor and head of the Department of Psychiatry and Behavioral Sciences, Health Sciences Center.

Newsweek Contributing Editor George Will, who also is a columnist for the *Washington Post*, will discuss "Medicine for, and in, the

Economy," at the luncheon on Monday, June 8, at 12 noon. Tickets for the luncheon are \$17.50.

The Convention will begin with national program presentations and in-depth consultations in the areas of AMA-ERF, health projects, legislation, membership, and resident physician/medical student spouse programs. The presentations will be held on Sunday, June 7, at 8:30 a.m., followed by the consultations at 10 a.m. The format is designed to offer participants the opportunity to bring their questions and concerns to national program committees.

Reference Committee Hearings will be held at 8 a.m. on Monday,

June 8. Bylaws amendments, the 1981-82 AMA Auxiliary budget, and resolutions from state auxiliaries will be discussed at these hearings, which are designed to get the input of all AMA Auxiliary members and leaders into the policy and programs of the organization. Reference Committee reports will be heard on Tuesday, June 9, at 9 a.m., at which time all delegates will vote on recommendations.

Special events and hotel reservation forms are in the May 1981 issue of *FACETS*. For further information, contact Indiana State Medical Auxiliary, 3935 N. Meridian St., Indianapolis 46208.

Welcome

THE JOURNAL welcomes Mrs. Glenn W. Irwin, Jr. (Marianna) as the 53rd president of the ISMA Auxiliary.

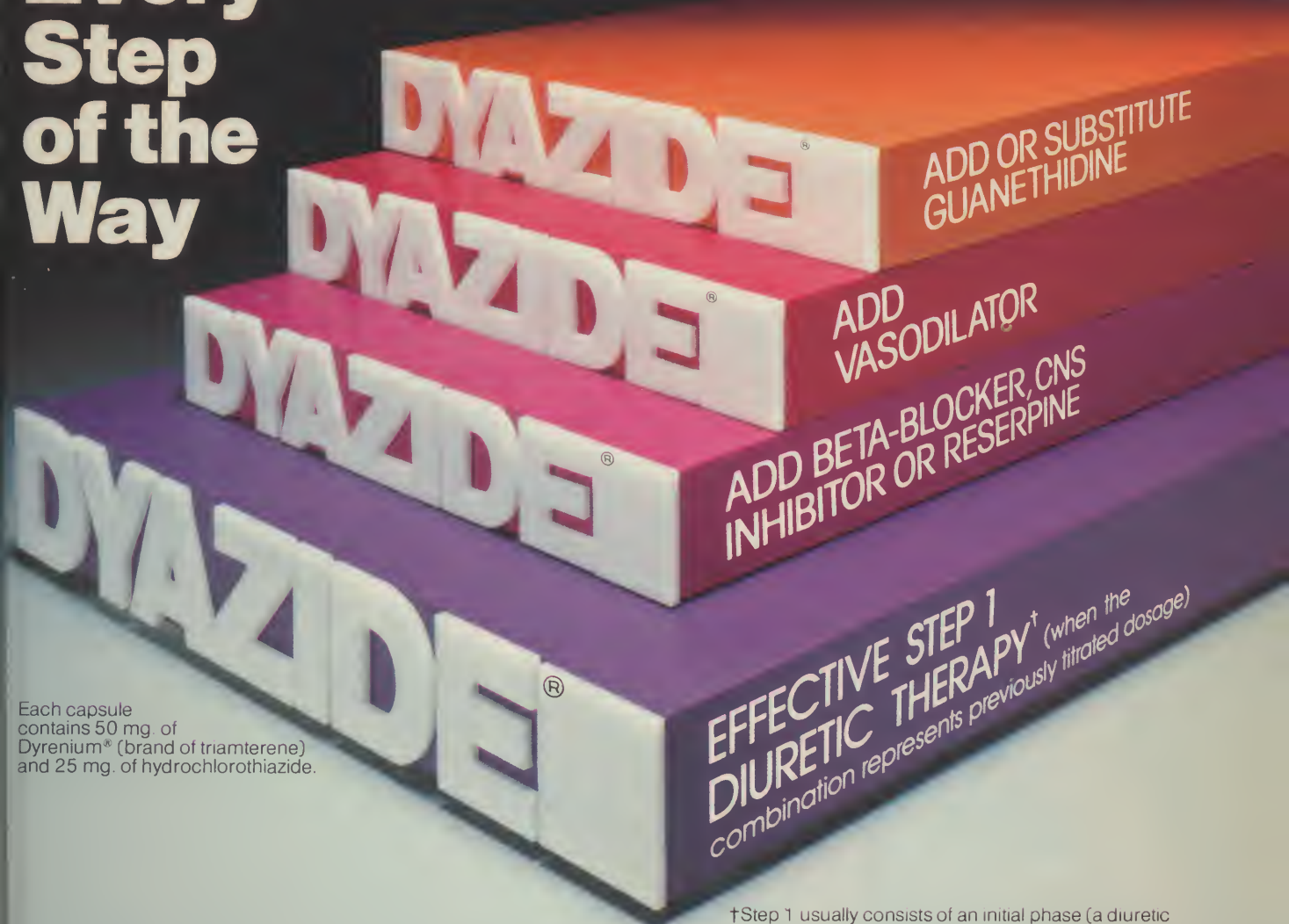
Originally from Ladoga, Ind., Marianna is now a resident of Indianapolis where her husband, an internist, is vice-president of Indiana University in charge of the Indianapolis campus. They have three children.

Marianna, a graduate of Indiana University, has been active

in community affairs for several years. She currently is serving on the board of the Central Region Blood Center and is chairman of the Mayor's Advisory Council on Cultural Affairs. Her past affiliations include the Marion County Mental Health Association, Planned Parenthood, Marion County Child Guidance Clinic and the Indianapolis Junior League. She is a past president of the Marion County Medical Society Auxiliary.

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Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. The following is a brief summary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed potassium tablets should not be used. Hyperkalemia can occur and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and tri-

amterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded; in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias: liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. Dyazide interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted

cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

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A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients.

In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups...

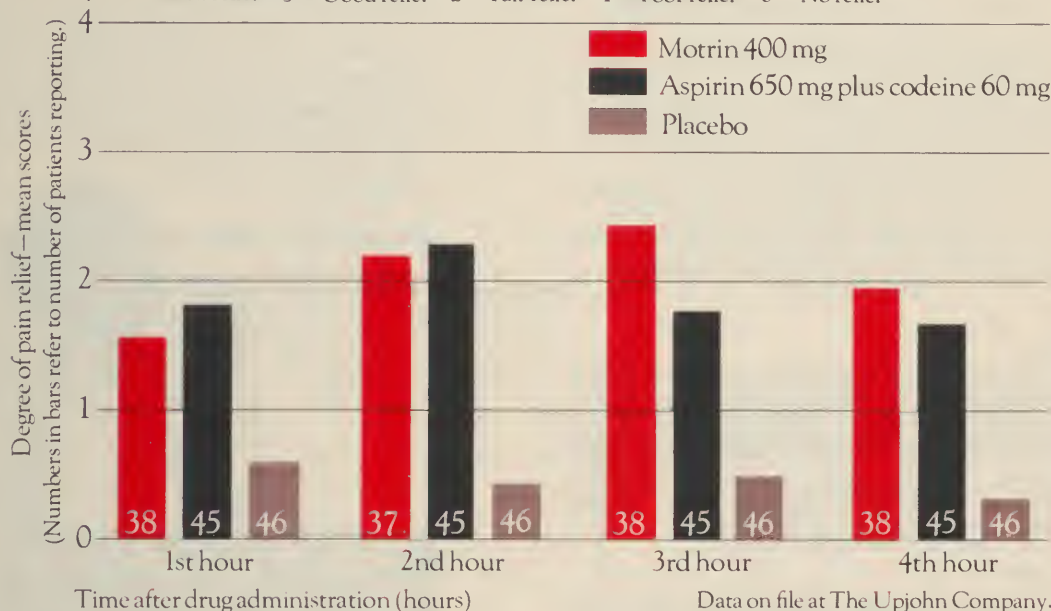
with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval.

Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief

Motrin vs aspirin-codeine combination

4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



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For relief of mild to moderate pain:

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- Not a narcotic • Not addictive • Not habit forming • Nonscheduled
- Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

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Motrin[®] Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

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NEWS NOTES

\$25,000 Nutrition Research Award

Bristol-Myers Company and its subsidiary, Mead Johnson & Company, have established an annual \$25,000 award to recognize outstanding contributions by a scientist to progress in nutrition research. The recipient will be chosen by a seven-member selection committee of which Dr. Morris Green, Indianapolis, is a member.

ACLM Monthly Newsletter Available

LAMP, an official publication of the American College of Legal Medicine, is available by subscription. It is a non-academic but fully authoritative publication that distills the complexities of the law into simple strategies which deliver a more secure level of responsive patient care. It is edited by a physician who also has a law degree. The annual subscription rate is \$48 for 12 issues. Write to Legal Aspects of Medical Practice, 42-15 Crescent Street, Long Island City, N.Y. 11101.

New Family Practice Diplomates

The following ISMA physicians have been named diplomates of the American Board of Family Practice.

Benson, Linda L., Indianapolis
Bridge, Thomas A., Lafayette
Calhoun, Charles, Seymour
Coate, Dallas E., Lebanon
Das, Amal K., Kokomo
Egli, John A., Topeka
Feldman, Richard D., Carmel
Felker, Dean R., Greenfield
Flamion, Patrick C., Newburgh
Franks, William T., Muncie
French, Charles R., Terre Haute
Guebard, Bruce A., Fort Wayne
Gupta, Ram C., Merrillville
Harris, Garnet R., Plainfield
Heavin, Robert A., Coatesville
Hibner, Nolan A., Monticello
Hocker, Clifton M., Jr., South Bend
Kincaid, Richard W., Evansville
Lutz, Larry W., Evansville
Matherly, Ryan D., Elkhart
McDonald, Steven A., Terre Haute
McKinney, Kent G., Newburgh
Micon, Edward M., Beech Grove
Miller, Thomas P., Hagerstown
Minter, Alice E., Indianapolis
Mohrman, John S., Fort Wayne
Phillips, Joseph D., Indianapolis
Schulz, Eric V., Bedford
Scruby, David J., Indianapolis
Stecker, Ellyn T., South Bend
Stiles, Reginald B., Fort Wayne
Tanner, Richard R., Indianapolis
Torrella, Roxann M., Indianapolis
Warrener, Gerald G., II, Avilla
Wunder, William E., Indianapolis
Yoder, Steven M., Syracuse

Child Car Safety Coordinator

Car safety for children is the latest public health project for the American Academy of Pediatrics. The Academy has appointed David Shinn, a nationally recognized authority on the subject, to direct the Office of Public Education in the Academy headquarters in Evanston.

Shinn will coordinate the activities of "The First Ride . . . A Safe Ride." This program will seek to encourage the use of car safety seats and seat belts among children of all ages, and will stress the need for newborns to ride home from the hospital in an approved car safety seat.

Booklet on Ethics for Sale

"Common Sense and Everyday Ethics" is an essay developed by Ethics Resource Center in recognition of the profound importance of honesty and ethics in the U.S. today. And while talking about the importance of these qualities it pretty well catalogs the distressing lack of them in business and public life. Single copies are available postpaid for \$1. Larger quantities at a reduction. The Center's address is 1730 Rhode Island Ave., N.W., Washington, D.C., 20036.

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NEWS NOTES

Beer Does NOT Cause Cancer

Stop worrying! Beer, both domestic and imported, has been found to be within safe limits as regards nitrosamine content. Exceptions noted in the FDA monitoring program have been slight and far between. A full report appears in the March 6 issue of *JAMA*. The AMA press release includes good advice—the *JAMA* report is concerned only with nitrosamines—beer drinkers must still be wary of excessive drinking, alcoholism and obesity. But, at least, beer devotees don't have to worry any more about nitrosamine hazard.

Fire Prevention Film Catalog

Fire Prevention through Films, Inc. has issued its 1981 catalog describing 16 mm safety and fire prevention films for training and public information. Several new titles are included.

The lessons taught are basic safety and fire prevention for people at work, at home or at school. Special films teach safety and security to baby sitters and show kindergarten children how to avoid burn injuries and escape from fire.

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Government Spending Cutbacks

Included in the Administration's plan to cut the 1982 health budget by \$2 billion are Medicaid, PSROs, HMOs, health planning and PHS hospitals, according to the *American Medical News*.

But the Health and Human Services health budget for FY 82, which begins Oct. 1, will be \$74.6 billion, compared with \$66 billion this year. The increase is being blamed on the Medicare and Medicaid programs. Singled out were federal Medicaid payments, which will be "capped" to save \$1 billion. Another \$1 billion will be saved by a 25% reduction in the federal contribution to 40 health and welfare programs.

Spending proposals include killing the federal health planning program, eliminating PSROs by 1984, and cutting funds for HMOs by 1983. Also on the chopping block are the eight Public Health Service hospitals and 27 clinics, as well as outlays for medical schools.

Although certain benefits will be deleted, the Medicare program will not suffer any crippling blows.

4 Hoosiers Named to USP Panels

The United States Pharmacopeial Convention has announced new members for 18 expert advisory panels of the USP Committee of Revision. Panel members from Indiana include: Dr. A. S. Ridolfo, Indianapolis, Panel on Analgesics, Sedatives, and Anti-Inflammatory Agents; Dr. Stuart A. Kleit, Indianapolis, Panel on Electrolytes, Large-Volume Parenterals, and Renal Drugs; and Dr. Bruce H. Mock, Indianapolis, Panel on Radiopharmaceuticals. Dr. Roscoe E. Miller, Indianapolis, is chairman of the Panel on Radiopharmaceuticals.

CME Quiz . . .

CONTINUED FROM PAGE 299

5. One of the following statements concerning chest roentgenographic abnormalities in TB is false.

- a. The miliary densities may not be visible on the chest film in the early stages of disseminated TB.
- b. Isolated anterior segment upper lobe reactivation TB is very uncommon.
- c. Bilateral hilar adenopathy is uncommon.
- d. Isolated lower lobe TB occurs in fewer than 1% of all patients with pulmonary TB.

6. One of the following statements is true.

- a. The miliary densities may not be visible on the chest film in the early stages of disseminated TB.
 - b. Isolated anterior segment upper lobe reactivation TB is very uncommon.
 - c. Bilateral hilar adenopathy is uncommon.
 - d. Isolated lower lobe TB occurs in fewer than 1% of all patients with pulmonary TB.
- a. The chest radiographic features of primary histoplasmosis and primary TB are distinguished easily.
 - b. Primary TB rarely occurs in adults.
 - c. The chest radiographic features of a tuberculoma are not specific; therefore, other diagnostic tests such as lung biopsy often are indicated to establish a diagnosis.
 - d. The presence of calcified hilar lymph nodes is virtually diagnostic of healed primary TB.

Here and There . . .

. . . **Dr. Suzanne B. Knoebel** of Indianapolis has been elected president-elect of the American College of Cardiology. She is associate director of the Krannert Institute of Cardiology and assistant dean for research, I.U. School of Medicine.

. . . **Dr. John E. Pless** of Bloomington, a forensic pathologist, conducted a death investigation seminar for Elkhart County police and fire department personnel in March.

. . . **Dr. N. Stacy Lankford** of Elkhart discussed a variety of urological problems during the March meeting of the Elkhart County Chapter, American Association of Medical Assistants.

. . . **Dr. John E. Gilliland** of Franklin spoke in March on "Why Jog and How to Get Started" at the Franklin-Johnson County Public Library.

. . . **Dr. Sterling E. Doster** of Bloomington and **Dr. Prasit Sri** of Hammond have been inducted as Fellows of the American Academy of Orthopaedic Surgeons.

. . . **Dr. R. Charles Eades**, a South Bend psychiatrist, discussed "Understanding Guilt and Depression" in March during the opening session of the 1981 Pollitt Series, sponsored by the Family and Children's Center. He is clinical director of the Northern Indiana Children's Hospital.

. . . **Dr. Sohrab Amini** of Huntingburg presented a program for medical personnel in February at St. Joseph's Hospital. His subject was "Emergency Management of the Patient With an Amputated Limb."

. . . **Dr. John D. Miller** of Bluffton has been elected president of the Indiana Medical Licensing Board for a one-year term. Other members of the board are **Dr. James N. Hampton**, Argos; **Dr. Bruce Brink**, Princeton; **Dr. John Mader**, Richmond; **Dr. Edward Hollenberg**, Winamac; **Dr. Walter Beneville**, Jeffersonville; and **Dr. Daniel Ramker**, Hammond.

. . . **Dr. John B. Thurston** of Indianapolis discussed facial trauma in March at a meeting of the Johnson County Emergency Medical Technicians.

. . . **Dr. David A. Sorg** of Fort Wayne was among panel members discussing exercise and diet for diabetics at a March meeting in the Allen County Public Library. The meeting was sponsored by the American Diabetes Association, Indiana Affiliate, Inc.

. . . **Dr. Steven R. Gable**, a South Bend neurologist, addressed a meeting of the Multiple Sclerosis Support Group at the South Bend Public Library in March.

. . . **Dr. Otto Lehmberg** of Columbia City, who retired in 1976, detailed the medical history of Whitley County for a February meeting of local Rotarians.

. . . **Dr. Ronald E. Steele** of Indianapolis has returned to his urologic practice after completing the Microsurgery Course at Johns Hopkins University. The course is designed to fill the needs of surgeons for training in basic microsurgery techniques.

. . . **Dr. G. William Gossmann** and **Dr. William M. Sligar**, both of Jeffersonville, have been inducted as Fellows of the American Academy of Orthopaedic Surgeons.

. . . **Dr. Maurice E. John, Jr.**, a Jeffersonville ophthalmologist, presented a slide talk on his recent trip to Russia for the Leavenworth Area Senior Citizens in February. Dr. John studied a Russian physician's new technique to surgically correct nearsightedness.

. . . **Dr. William E. Graham**, a Fort Wayne obstetrician-gynecologist, discussed emergency childbirth for northeastern Indiana emergency medical personnel meeting in March at Parkview Memorial Hospital.

. . . **Dr. Donald T. Olson**, director of medical education, South Bend Memorial Hospital, has been appointed chairman of the undergraduate medical education committee of the Association of Indiana Directors of Medical Education. The committee serves as liaison between medical education directors and the Indiana University School of Medicine.

. . . **Dr. B. Diane Wells** of Spencer, **Dr. Nancy Oehler** of Brazil, and **Dr. Louise A. Owens** of Bloomington were guest speakers at a March meeting of the Bloomington Local Council of Women. They discussed "On Being a Woman Physician."

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What's Today's Date?

Guest Editorial

RICHARD J. NOVEROSKE, M.D.
Evansville

THE U.S. ARMED FORCES and most of the world log the date as "12 April 1981" although the average American says and writes "April 12, 1981."

The U.S. military manner is more direct and more courteous than our civilian habit.

If I ask you, "What's today's date?" and you reply "the twelfth," "the twelfth of April," or "12 April 1981," you're giving me what I want to know first—the day of the month. Communication is instantaneous. We usually know what month it is. Why make the questioner wait while the name of the month is recited before he can hear what he really wants to know—the day of the month? Let's give it to him first, as they do in the rest of the world.

It's customary in Europe to substitute a Roman numeral for the number of the month, and this

causes confusion—particularly among American travelers. I think our military method of writing out the letters of the name of the month (like "May") or abbreviating the name but still using letters (like "Oct") is less confusing than using a number for the month.

Some abbreviate the year to "81" for example, rather than writing out "1981." That's O.K. for short-term writing.

Another point about our military method that is commendable is the absence of a comma in the date. The letters of the month separate clearly the numbers of the day from the numbers of the year. No comma is necessary. This saves an extra stroke of the typewriter or pen, and in the aggregate can save much—like Walt Disney's custom of drawing animated characters with four digits, rather than five on each hand. Disney's savings of time and effort from this simple decision have been enormous over the years.

If physicians are teachers—as the title "doctor" indicates—we can teach by showing the example of writing and stating dates with the day before the month.

OBITUARIES

Charles B. Emery, M.D.

Dr. Emery, 78, a retired Bedford physician, died March 16 in Bloomington Hospital.

He was a 1930 graduate of the University of Michigan Medical School. He began his practice in Bedford in 1933 and retired in 1973.

Dr. Emery, an Army veteran of World War II, was a past president of the Lawrence County Medical Society. He also was a former chief of staff at Dunn Memorial Hospital, Bedford. He became a member of the ISMA Fifty Year Club last year.

Louis P. Harshman, M.D.

Dr. Harshman, 88, a retired Frankfort physician, died Feb. 15 at a retirement home in Frankfort.

He was a 1919 graduate of Indiana University School of Medicine.

Dr. Harshman served more than 12 years as chief of psychiatry and neurology at the Fort Wayne Veterans Hospital and had been a lecturer in psychiatry at Indiana University. He was a member of the American Psychiatric Association and was certified by the American Board of Psychiatry and Neurology. He was enrolled in the ISMA Fifty Year Club in 1969.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

Joseph Finneran, M.D.
Frederick D. Randall
Marlow W. Manion, M.D.
H. E. Raffensperger
Hwei-Ya Chang Loh, M.D.
John Riley
Robert M. Hollowell
John Twyman
Albert M. Donato, M.D.
James Blackmore
Goethe Link, M.D.
Mrs. Beth Bowen

Earl R. Leinbach, M.D.

Dr. Leinbach, 62, a Hamlet physician for 29 years, died Feb. 27 of injuries suffered in an automobile accident on U.S. 35, just south of U.S. 30 near Hamlet.

He was a 1951 graduate of Indiana University School of Medicine.

Dr. Leinbach, chairman of the Starke County Emergency Medical Services board, was a member of the American College of Emergency Physicians and the American Academy of Family Physicians.

William DePrez Inlow, M.D.

Dr. Inlow, 90, a surgeon who was a co-founder of the Inlow Clinic in Shelbyville, died Feb. 11 at William S. Major Hospital, Shelbyville.

He was a 1917 graduate of Rush Medical College. He was a veteran of World War I, after which he worked at the Mayo Clinic. He and his two brothers opened the Inlow Clinic in 1923. He retired from practice in 1960.

Dr. Inlow, a native of Manila, once served as an ISMA delegate and was a past chairman of the ISMA Section on Surgery. He became a Fifty Year Club member in 1967.

Dr. Inlow was presented the Shelbyville Rotary Club's annual Arts and Humanities Award in 1979 for providing the county with "specialized medical treatment comparable to that available in Chicago, Rochester or anywhere." He was credited with being a classical scholar, student, philosopher, author and accomplished violinist.

Robert G. Moore, M.D.

Dr. Moore, 82, a Bicknell, Ind., radiologist, died Feb. 20 at Good Samaritan Hospital, Vincennes.

He was a 1924 graduate of Indiana University School of Medicine. He was an Army veteran of World War I.

Dr. Moore was a founder and the first enrolled member of the Indiana Roentgen Society and was a member of the Radiological Society of North America. He was on the emeritus staff of Good Samaritan Hospital where he set up the hospital's first radiology department in 1944. He became a member of ISMA's Fifty Year Club in 1974.

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RADIOLOGIST—Our 120-bed facility needs a Director of Radiology. Board certification in radiology is desirable as well as ultrasound and nuclear medicine training. Hospital presently bills for the professional component. Come enjoy country life within minutes of Indianapolis. Interested parties should contact: James T. Fallon, Administrator, Margaret Mary Community Hospital, Inc., 321 Mitchell Ave., Batesville, Ind. 47006.

CAMBRIDGE CITY, Indiana needs Family Physicians. We are a beautiful community of 5,000 and seek one, preferably two, family physicians. We offer small town stability and easy access to Indianapolis, Dayton and Cincinnati. Your hospital-based care is available only 14 miles away at Reid Memorial Hospital, Richmond, Ind., a 359-bed regional referral center. Construction has just been completed on a physicians' office building that you can furnish to suit your style of practice. First-year practice guarantee is available. Send your C.V. to: Theodore J. Sobol, Physician Recruitment Committee, Reid Memorial Hospital, 1401 Chester Blvd., Richmond, Ind. 47374.

CALIFORNIA—DIRECTOR POSITIONS AVAILABLE. Emergency medicine physicians needed for rural northern California areas. Excellent opportunity to join growing partnership of career emergency physicians. Emergency medical residency, Board Certification or at least two years experience required. Excellent benefit package and profit sharing. Contact Judy Neal, California Emergency Physicians, 440 Grand Ave., Suite 500, Oakland, Calif. 94610, (415) 832-6400.

FULLY EQUIPPED medical building for sale or rent. Located in Bunker Hill, Ind., near Kokomo. Address all inquiries to Ruben R. Gaboya, Estate, Box 577, Bunker Hill, Ind. 46914.

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EMERGENCY DEPARTMENT positions available throughout the United States, either on a full-time or locum tenens basis. Choice locations, scheduled hours, competitive salaries, excellent benefits including malpractice insurance. We're on the move, come grow with us. Contact EC1, Recruiting Division, Suite 121, 2240 S. Airport Road, Traverse City, Mich. 49684. Call 1-800-253-1795, out-of-state, in Michigan 1-800-632-3496.

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VACATION HOMES FOR SALE—Two and three bedroom condominium vacation homes at The Pointe on Lake Monroe, a luxurious golfing community south of Bloomington. Excellent long or short term rental potential. May be purchased furnished or unfurnished. Low 40s to 70s. Call Belva Wilson at Owens, Bryan and Reed, Realtors, (812) 336-6888 or (812) 334-3194.

Commercial announcements are published as a service to members of the Indiana State Medical Association. Only advertisements considered to be of advantage to members will be accepted. Advertisements of a truly commercial nature (e.g., firms selling brand products, services, etc.) will be considered for display advertising.

Charges for commercial announcements are:

20¢ for each word

\$4.00 minimum charge per insertion

Address: THE JOURNAL, Indiana State Medical Association, 3935 N. Meridian St., Indianapolis, Ind. 46208.

Deadline: First working day of month PRECEDING month of issue.

Constitution and Bylaws

Constitution

1980 - 1981

ARTICLE I—TITLE AND DEFINITION

The name of this organization is the Indiana State Medical Association. It is the federacy of Indiana county medical societies.

ARTICLE II—PURPOSES

The purposes of this Association shall be to federate and bring into one compact organization the medical profession of the state of Indiana, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education; to promote friendly relations among physicians; to protect its members against imposition; and to enlighten and direct public opinion in regard to the great problems of medical care and public health so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III—COMPONENT SOCIETIES

Component societies are those county and district medical societies contained within the state of Indiana, and who hold charters from this Association.

ARTICLE IV—MEMBERS

The Indiana State Medical Association is composed of individual members of county medical societies and others as shall be provided in the Bylaws.

ARTICLE V—HOUSE OF DELEGATES

The legislative and policy-making body of the Association is the House of Delegates composed of elected representatives and others as provided in the Bylaws. The House of Delegates shall transact all business of the Association not otherwise specifically provided for in the Constitution and Bylaws and shall elect the general officers, except trustees, as otherwise provided in the Bylaws.

ARTICLE VI—OFFICERS

The general officers of the Association shall be

a president, president-elect, immediate past president, treasurer, assistant treasurer, speaker, vice speaker, and the trustees. Their qualifications and terms of office shall be provided in the Bylaws.

ARTICLE VII—TRUSTEES

The Board of Trustees is composed of trustees and alternate trustees elected by the component district medical societies, and the president, the president-elect, treasurer, immediate past president, the assistant treasurer, with power to vote only in the absence of the treasurer, and the speaker and vice speaker without power to vote and the executive director without power to vote. The alternate trustees have power to vote only in the absence of the trustee.

The Board of Trustees shall have charge of the property and financial affairs of the Association and shall perform such duties as are prescribed by the law governing directors of corporations or as may be prescribed in the bylaws.

ARTICLE VIII—THE CONVENTION

The House of Delegates and the general scientific program shall be convened annually and at such other times as deemed necessary or as provided in the Bylaws, in cities recommended by the Board of Trustees and approved by the House of Delegates.

ARTICLE IX—FUNDS, DUES AND ASSESSMENTS

Funds may be raised by annual dues or by assessment of the active members on recommendation of the Board of Trustees and after approval by the House of Delegates, or in any other manner approved by the Board of Trustees as provided in the bylaws.

ARTICLE X—AMENDMENTS

The House of Delegates may amend this Constitution at any convention provided the proposed amendment shall have been introduced at the preceding annual convention and provided two-thirds of the voting members of the House of Delegates vote approval and provided that it shall have been published twice during the year in THE JOURNAL of the Association.

(This printing incorporates amendments of the 1980 House of Delegates)

Bylaws

DIVISION ONE—MEMBERSHIP CHAPTER I—QUALIFICATIONS, ELECTION AND RIGHTS

Section 1. Regular Member. The term "regular member" as used in these Bylaws shall include Active, Senior, Disabled Member, Medical Student Member, Inactive Member, Interns and Residents, of component county medical societies who hold the degree of Doctor of Medicine or Bachelor of Medicine, or who hold an unrestricted license to practice medicine and surgery unless the license has been surrendered because of retirement as required in the Medical Practice Law. As to Interns and Residents they shall be serving in training programs approved by the Association, or if a Medical Student they shall be enrolled in a medical school approved by the Association. All regular members are entitled to exercise the rights of membership in their county and state associations, including the right to vote and hold office, as determined by their respective county medical society and/or their state association.

Regular members who are members in good standing of a component county society and who have paid to this Association their annual dues are members in good standing of the Indiana State Medical Association, provided, however, that they are citizens of the United States of America, or have filed their declaration of intention of becoming citizens and their first citizenship papers are in full force and effect.

Section 2. Special Member. The term "special member" as used in these Bylaws, unless otherwise indicated, shall mean Associate Members and Honorary Members as defined in Section 3, Chapter I of the Bylaws of the Indiana State Medical Association. Special members shall not be entitled to vote or hold office in this association.

Section 3—Members by Category

A. Active Members. The active members of this Association shall be the members of the component county medical societies, and no county medical society shall grant active membership therein on a basis that does not include membership in the district medical society and in the Indiana State Medical Association.

B. Interns and Residents. Interns and Residents who hold membership in the Indiana State Medical Association shall have all the rights and privileges of this Association.

C. Senior Members. Senior Members shall be eligible for Senior Membership on January 1 following their 70th birthday and they shall be physicians of the State of Indiana and who have held their membership in the Indiana State Medical Association for 20 years or more; or who have held membership in the Indiana State Medical Association or in some one or more other like state organization which is a component state organization of the American Medical Association, for a combined total of 20 years or more, and who, upon their application, have been certified to the Executive Director as eligible for such membership by the county societies of which they are members. It shall be the duty of the county medical society to verify, through the office or offices of any other state organization or organizations, the fact of membership therein when such membership is claimed as part compliance with the eligibility requirement of 20 years of membership.

D. Honorary Members. Honorary members shall consist of teachers, scientists and others who have rendered highly meritorious service to the profession of medicine, and of physicians and surgeons of distinction, upon whom the Association may, through vote of the House of Delegates,

desire to confer such membership as a special honor.

Honorary members hereafter elected shall hold such membership as an honor and distinction and shall have the right to attend meetings of the Association. They shall have the privilege of participating in discussions but shall have no right to vote or to hold elective office. They shall not be required to pay membership dues in the State Association. Such honor may be conferred by the vote of the House of Delegates.

E. Disabled Members. Disabled members shall consist of physicians of the State of Indiana who are certified by a member physician to be permanently disabled and no longer able to practice medicine. Proof of permanent disability shall be by notification to the Executive Director of the Association by the secretary of the county medical society in which such permanently disabled physician holds membership.

All such disabled members shall receive membership cards.

F. Distinguished Members. Active members who have fulfilled the American Medical Association's Physician Recognition Award requirements of 150 hours for three years of continuing medical education as a minimum shall be designated as Distinguished Members.

G. Inactive Membership. Regular members who decide voluntary inactivity prior to the age of 70 shall be exempt from payment of membership dues for the duration of their inactive status when recommended by the county medical society and approved by the Board of Trustees. In deciding whether to approve a member's eligibility for inactive status, both the county medical society and the ISMA Board of Trustees shall determine that the member has substantially ceased the practice of medicine in the state of Indiana.

H. Student Members. Medical students who attend an accredited medical school in Indiana.

Student members may be represented in the House of Delegates with the power to vote. They shall be entitled to send one delegate or one alternate. Student delegate and alternate are to receive THE JOURNAL of the State Association.

The Student Council of the Indiana University School of Medicine shall elect a student delegate and alternate delegate from nominees presented to them from each class. All resolutions introduced in the name of the student body must be presented through the Student Council functioning as the executive body of the student members—in effect, a student component society.

Section 4—Rights and Privileges of Members

A. Suspension or Revocation of License

No person whose license to practice medicine has been suspended or revoked or who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Association or of a component county society, nor shall said person be permitted to take part in any of their proceedings until said person has been relieved of such disability. This shall not apply to physicians who have surrendered their license because of retirement under the provisions of the Medical Practice Law.

B. Attendance at Annual Convention

Members attending the Annual Convention shall register by indicating the component society of which they are members. When their right to membership has been verified, by reference to the roster of their society, they shall receive a badge, which shall be evidence of their right to all the privi-

leges of membership at that convention. Members shall not take part in any of the proceedings of an Annual Convention until they have complied with the provisions of this section.

C. Rights and Privileges by Membership Category

Rights and Privileges of Members. Active members, intern and resident members, senior members, disabled members, honorary members, student members and inactive members shall have the same rights and privileges except as follows:

(a) Senior members shall not be required to pay membership dues in the State Association.

(b) All dues exempt members may receive THE JOURNAL upon payment of the applicable senior member subscription price.

CHAPTER II— DUES, FUNDS AND ASSESSMENTS

Section 1—Dues

A. Income and Expenses

Funds for carrying on the activities of the Association shall be raised by the following means:

(a) Membership dues to be collected may be collected by the Indiana State Medical Association or by the component county societies. The amount of dues of each component society shall be fixed by the society itself; and the amount of dues for this Association shall be fixed from time to time by the House of Delegates.

(b) The Indiana State Medical Association dues for active members in their first year of practice following formal training shall be one-half the amount as may be established by the House of Delegates. County medical societies shall be encouraged to follow the same policy.

(c) Voluntary contributions.

(d) Revenues derived from the Association's publications.

(e) Upon recommendation of the Board of Trustees or any other manner approved by the House of Delegates.

Funds shall be appropriated by the Board of Trustees to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All motions and resolutions recommending the appropriation of funds by the House of Delegates must be referred to the Board for recommendation before final action is taken by the House of Delegates.

B. Change in Dues Structure

The final vote on any issue calling for changes in dues or in dues structure shall be by roll call vote of the House of Delegates. Each member's vote shall be permanently recorded and no suspension of this rule will be allowed on the final vote on such an issue.

DIVISION TWO— ANNUAL CONVENTION ACTIVITIES CHAPTER III—CONVENTION AND MEETINGS

Section 1—Annual Convention

The Association shall hold an Annual Convention during which there shall be held such general and section meetings as the Association through its duly constituted officers and committees may provide for.

Section 2—Selection of Site

The House of Delegates shall select the place five years in advance for holding the Annual Convention. The time for the convention shall be fixed by the Board, and the Board shall have the power also to change the place for holding the convention where conditions may create difficulties in holding a successful convention at the place designated by the House of Delegates.

Any of the component member county societies wishing to invite the Indiana State Medical Association to hold its an-

nual meeting in its locality shall submit an invitation in writing at least five years in advance to the Board of Trustees. The Board of Trustees shall make an investigation of the facilities and in turn recommend the location to the annual meetings for concurrence by the House.

Section 3—Special Meetings

Special meetings of either the Association or the House of Delegates shall be called by the President upon receipt of a petition signed by thirty delegates or one hundred members. The signed petition shall contain the names of at least ten delegates or thirty-four members from each of at least three Board districts. Upon receipt by the President of such a petition, the President shall within thirty days thereafter issue a call for such special meeting at a time and place to be fixed by the President. The President, in specifying the time of such special meeting, shall fix the same as soon thereafter as reasonable and suitable arrangements can be made.

Section 4—General Meetings

General Meetings shall mean all meetings planned for attendance by all registered members, and shall include those meetings in which guests of registered members or the general public are also invited. The address of the President may be delivered in a General Meeting, and the programs of General Meetings shall be arranged by the Executive Committee except where scientific papers are included, in which event the scientific part of the program shall be arranged by the Commission on Convention Arrangements, with the sanction and approval of the officers.

Section 5—Appointment of Committees

The General or Section Meetings may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and public.

CHAPTER IV—SPECIALTY SECTIONS

Section 1—Official Sections

During the Annual Convention the Association in addition to the general meetings may hold the following section meetings:

- a. Allergy
- b. Anesthesia
- c. College Health Physicians
- d. Cutaneous Medicine
- e. Directors of Medical Education
- f. Emergency Medicine
- g. Family Physicians
- h. Internal Medicine
- i. Interns and Residents
- j. Medical Directors and Staff Physicians of Nursing Facilities
- k. Nervous and Mental Diseases
- l. Neurological Surgery
- m. Nuclear Medicine
- n. Obstetrics and Gynecology
- o. Ophthalmology
- p. Orthopedic Surgery
- q. Otolaryngology, Head and Neck Surgery
- r. Pathology and Forensic Medicine
- s. Pediatrics
- t. Preventive Medicine and Public Health
- u. Radiology
- v. Surgical
- w. Urology

All future sections may be formed by properly constituted resolution which shall include the signatures of a minimum of 15 members or 25% of the members, whichever is greater, who are practicing that specialty in the state of Indiana.

Section 2—Officers

The officers of each section shall be a Chairman, a Vice-Chairman, and a Secretary, and they shall preside over the meetings of the sections and shall be responsible to the Commission on Convention Arrangements for the section speakers and papers.

Section 3—Officer Elections

The election of officers of the sections shall be the last order of business of the last meeting of the sections during the Annual Convention.

Section 4—Restriction on Meetings

No section meeting shall be allowed to conflict with a general meeting.

DIVISION THREE — BUSINESS AND LEGISLATION CHAPTER V—HOUSE OF DELEGATES

Section 1—Composition

The House of Delegates shall be the legislative and policy-making body of the Association and shall consist of (1) Delegates, or their designated alternates, elected by the component county societies; (2) the Trustees, or their designated alternates, and (3) the ex-Presidents of the Indiana State Medical Association. The Delegate or designated Alternate Delegate elected by their respective section shall also be a member but without power to vote. The following shall be ex officio members: The President, the President-Elect, the Executive Director, the Treasurer and Assistant Treasurer of this Association, the Speaker, the Vice Speaker and the delegates to the American Medical Association, all without power to vote, except the Speaker and Vice-Speaker who shall vote as set forth in Chapter VI, Section 3 (F) and (G) hereafter.

Section 2—Meetings

The House of Delegates may meet on the day before the date set for the beginning of the general registration of the attendance at the Annual Convention. It may recess from time to time as may be necessary to complete its business, provided that its hours shall conflict as little as possible with the general or section meetings. It shall meet on the last day of the Annual Convention for the election of officers for the ensuing year, and for the completion of any business previously introduced. The order of business shall be arranged as a separate section of the program. Nominations for officers of the Association may be made at any meeting of the House of Delegates.

Section 3—House Admission

All sessions of the House of Delegates shall be open to all members in good standing of this Association for observation.

Section 4—Delegate Apportionment

Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members and one for each major fraction thereof; but, irrespective of the number of members, each component society which has made its annual report and paid its assessments, as provided in this Constitution and Bylaws, shall be entitled to one Delegate, except that where a component society is made up of physicians of more than one county, each county shall be entitled to at least one Delegate and one Alternate Delegate who shall be a resident of the county represented as a Delegate or Alternate Delegate and who shall be selected by the physicians residing in such county. The Student Delegate shall be seated with full power to vote. In the absence of the Student Delegate, the Alternate shall be seated with full power to vote.

The number of Delegates to which each component society is entitled shall be based upon the number of members on record in the office of the Executive Director in good standing with current dues fully paid as of December 31 of the preceding year.

All sections listed in Chapter III, Section 1, of these Bylaws shall be entitled to send to the House of Delegates each year one Delegate or one Alternate Delegate without the power to vote.

The names of duly elected Delegates and Alternates from each component society shall be sent to the Executive Director of this Association on or before February 1, prior to the Annual Convention at which such Delegates are to serve. No one shall be entitled to a seat in the House of Delegates unless a credential card as a Delegate or Alternate, properly signed by the Secretary of the appropriate county medical society, Executive Secretary or Executive Director of the larger societies, is presented to the Committee on Credentials at the time of the Annual Convention.

Section 5—Quorum

Fifty (50) Delegates shall constitute a quorum.

Section 6—Responsibilities

A. Delegates to American Medical Association

The House of Delegates shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body. In the event of a permanent vacancy occurring among the AMA Delegates, the remaining delegation to the AMA shall meet and nominate one of the Alternates to assume the vacancy until the next meeting of the Indiana State Medical Association House of Delegates, at which time the House will fill such vacancy. The nominated member proposed by the AMA delegation shall be subject to the confirmation of the Board of Trustees.

B. Organizing Districts and Sections

The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections; and for the organization of such Trustee District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies. Trustee districts shall be defined by the House of Delegates.

The House shall divide the state into Trustee districts, specifying which counties each district shall include, and when the best interest of the Association and profession will be promoted thereby, organize in each district a medical society, and all members of component county societies, and no others, shall be members of such district societies.

C. Authority to Appoint Special Committees

The House shall have authority to appoint committees for special purposes from among members of the Association who need not be members of the House of Delegates. Such committees shall report to the House of Delegates, and the members of such committees may be present and participate in the debate on their reports.

Section 7—Resolutions and Proposals

The House of Delegates shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective.

Proposals calling for appropriation of funds by the House of Delegates shall be accompanied by a fiscal note and shall be submitted to the Executive Committee and the Board for review, presentation and recommendation for final action of the House. No proposal calling for appropriations shall be considered if not accompanied by a fiscal note.

Except as noted in Section 8, Paragraph B, all resolutions to be presented to the House of Delegates for action shall be prepared and mailed to the Executive Director of the Association so that they will be received not later than 45 days prior

to the meeting of the House of Delegates to which the resolutions will be presented for action.

Provided, that where a resolution has been first submitted to the Committee on Rules and Order of Business together with a written statement setting forth the reasons why said resolution was not mailed to the Executive Director more than 45 days prior to the meeting of the House of Delegates and also setting forth in said written statement the reasons why said resolution is of such an emergency nature that it cannot wait until the next meeting of the House, and that said Committee on Rules and Order of Business has approved said resolution for submission to the House, and that each Delegate shall be furnished a copy before the next meeting of the House, then this subsection of the Bylaws may be suspended with respect to said resolution upon a two-thirds vote of the House of Delegates.

Section 8—Reference Committees and Committee on Rules and Order of Business

A. Reference Committees

Immediately after the organization of the House of Delegates at each Annual Convention, the Speaker shall announce the membership of the Reference Committees to serve during the convention for which they are appointed. Appointments to these Reference Committees shall be made by the Speaker with the assistance of the President. The Chairman of each Committee shall also be appointed by the Speaker with the assistance of the President and they shall also appoint such additional House committees as the House may approve. All committees hereunder shall serve only during the convention at which they are appointed. Appointments shall be made in time for them to be published in THE JOURNAL and the Handbook prior to such Annual Convention.

The Speaker with the assistance of the President shall have the power to appoint substitutes from among the members present for absent appointees.

Each committee shall consist of at least five members, three of whom including the Chairman shall be Delegates-members of the House, unless otherwise provided. To these committees shall be referred all reports, resolutions, measures and propositions presented to the House of Delegates, except matters as properly come before the Board, and the recommendations of these committees shall be submitted to the next meeting of the House of Delegates for acceptance in the original or modified form or for rejection.

B. Responsibilities of Reference Committees

Four or more Reference Committees designed by numerals are hereby constituted to which all matters shall be referred, at least one of which shall be organized for the sole purpose of studying the addresses of the President; President-Elect; report of the Executive Director; and Chairman of the Board of Trustees. This Committee shall be mandated to translate recommendations made by these officers through resolutions for presentation to the House.

Where a report, resolution, measure, or proposition deals with more than one subject matter, reference thereof may, in the discretion of the Speaker of the House, be made (a) to as many Reference Committees as are necessary to cover all subjects included therein; or (b) to only one Reference Committee which the Speaker deems has within the scope of its reference the most important part of the matter referred.

No report of any Reference Committee shall be rejected on the ground that it covers something not included in the matters which such Committee was created to consider.

C. Time and Place of Meetings

The time and place of meetings of all Reference Committees shall be publicly posted, and all meetings of all Reference Committees shall be open to all members of the Association.

Officers and chairmen of all committees whose reports are referred to Reference Committees shall have the right to

appear and be heard before the respective committees to which such references are made, in regard to their reports.

Persons who are not members of the Indiana State Medical Association and seek to appear and present their technical or reference material to the Reference Committee must receive approval to appear on that specific subject from the Reference Committee.

Non-Indiana State Medical Association members must register as guests at the Committee and be at the call of the Reference Committee for testimony after which they may be excused from further attendance.

D. Committee on Rules and Order of Business

The Committee on Rules and Order of Business shall be composed of the Chairmen of the various Reference Committees appointed by the Speaker.

Section 9—Election of Officers

The officers of this Association with the exception of the Executive Director shall be elected by the House of Delegates as the first order of business at the final meeting of the House of Delegates, and no person shall be elected to any such office who has not been an active member of the Association for the preceding two years.

The officers except the Executive Director shall be elected annually. All officers shall serve until their successors are elected and installed.

A. Method of Election

All elections shall be by ballot, and a majority of the votes cast shall be necessary to elect. In case no nominee receives a majority on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken.

B. Terms

The President, President-Elect, Speaker, Vice-Speaker, Treasurer and Assistant Treasurer shall serve from the termination of the annual meeting of the House of Delegates in which the President-Elect, Treasurer and Assistant Treasurer are elected until the termination of the succeeding annual meeting of the House of Delegates.

C. Oath

The officers of the Association shall be installed by taking the following oath of office to be administered by the outgoing President of the Association at the final meeting of the House of Delegates:

I, _____, solemnly swear that I shall carry out to the best of my ability, the duties of the office of the Indiana State Medical Association to which I have been elected.

I shall strive constantly to maintain the ethics of the medical profession and to promote the public health and welfare. I shall dedicate myself and my office to improving the health standards of the American people and to do the task of bringing increasingly improved medical care within the reach of every citizen.

I shall uphold the Constitution of the United States of America and of the State of Indiana, the Constitution and Bylaws of the American Medical Association and the Constitution and Bylaws of the Indiana State Medical Association at all times.

I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans. To these duties and obligations, I pledge myself, so help me God.

CHAPTER VI—OFFICERS

Section 1—Composition

The officers of this Association shall be a President, a President-Elect, the Immediate Past President, an Executive Director, a Treasurer, an Assistant Treasurer, a Speaker, a Vice-Speaker, each of whom shall be a member, except the Executive Director, who need not necessarily be either a physician or a member.

The above offices of President, President-Elect, the Immediate Past President, Treasurer, Assistant Treasurer, Speaker, Vice Speaker, as well as AMA Delegates, AMA Alternate Delegates, and ISMA Trustees and ISMA Alternate Trustees are major offices. Individuals may not hold more than one major office during a given term and must resign from a major office if they attain a second.

Section 2—Removal, Death, Resignation, Vacancy

Any officer may be removed from office after a hearing before the Board, on thirty days' notice, on charges in writing, upon a vote of three-fourths of the members of the Board.

In the event of the death, resignation, removal or permanent disability of any officer of this Association whose successor is not otherwise provided for in these Bylaws, the vacancy shall be filled by the Board of Trustees until the next official meeting of the House.

The Board shall fill a vacancy in the office of Treasurer or Assistant Treasurer by an election by the Trustees at the next regular meeting of the Board following the occurrence of such vacancy.

Section 3—Duties

A. President

The President, or a member designated by the President shall preside at all general meetings of the Association. The President shall appoint all committees not otherwise provided for; shall deliver an annual address at such time as may be arranged by the Executive Committee, and shall perform such other duties as custom and parliamentary usage may require. The President shall be the real head of the profession of the state during the term of office, and as far as practicable, shall visit by appointment the various sections of the state and assist the Trustees in building up the county societies and in making their work more practical and useful.

B. President-Elect

The President-Elect's term of office shall be for one year, at the completion of which the President-Elect succeeds to the presidency. The President-Elect shall assist the President in the discharge of duties. Ex officio, the President-Elect shall be a member of all commissions and committees.

C. Treasurer

The Treasurer shall give bond at the expense of the Association in such an amount as shall be required by the Board unless included in the coverage of a blanket or position bond. The Treasurer shall receive all bequests and donations to the Association and shall demand and receive all funds due the Association in the conduct of its business. The funds of the Association shall be deposited in a depository or depositories designated by the Executive Committee, and withdrawals from such funds shall be made on checks or drafts signed by the Treasurer and/or other officers of the Association as the Executive Committee may designate. The Treasurer shall present to the House of Delegates annually a report of the receipts and expenditures, and the state of the funds on hand.

D. Assistant Treasurer

The Assistant Treasurer shall give bond at the expense of the Association in such amount as shall be required by the Board unless included in the coverage of a blanket or position bond. In case of death, or incapacity of the Treasurer, the Assistant Treasurer shall succeed to all the duties and rights of the Treasurer until a new Treasurer is elected. In the absence of the Treasurer, the Assistant Treasurer shall attend to the duties and rights of the Treasurer during such absence and shall also perform such duties of the Treasurer as may be delegated and assigned by the Treasurer.

E. Executive Director

The Executive Director shall be the directing manager of the Association's headquarters and THE JOURNAL offices, and shall supervise the work of all salaried employees in the Association offices. Such supervision shall be subject to direc-

tives from the House of Delegates, the Board, the Executive Committee, and the President of the Association. The Executive Director shall discharge the administrative functions of the Association not within the duties of other officers or of committees to perform. The Executive Director shall assist, at their request, all officers and committees, and shall keep informed in regard to nonprofessional matters affecting the medical profession, for the purpose of keeping qualified to perform the services herein mentioned. The Executive Director shall be responsible for the execution and carrying out of the policies of the Association and in that connection shall perform all specific tasks required by the committees, the Board, and the officers of this Association. The amount of the Executive Director's salary shall be fixed by the Executive Committee on approval of the Board.

F. Speaker

The Speaker shall preside at all meetings of the House of Delegates and shall perform such duties as custom and parliamentary usage require.

The Speaker may address the House of Delegates at the opening meeting of all conventions, limiting remarks to matters of conduct and procedure in the House. The Speaker is entitled to vote when the vote is by ballot. In all other cases, The Speaker shall have the right to vote only in case of a tie.

The Speaker shall be elected annually from the membership of the House. Ex officio, the Speaker shall be a member of all Commissions and Committees and the Board of Trustees of this Association without the power to vote. Training in parliamentary procedure shall be mandatory for the Speaker and shall be provided at the expense of the Association.

G. Vice Speaker

The Vice Speaker of the House of Delegates shall officiate at meetings in the absence of the Speaker or at the request of the Speaker. The Vice Speaker shall be elected annually from the membership of the House. Ex officio, the Vice Speaker shall be a member of all Commissions and Committees and the Board of Trustees of this Association without the power to vote. Training in parliamentary procedure shall be mandatory for the Vice Speaker and shall be provided at the expense of the Association. In the case of death, resignation or removal of the Speaker, the Vice Speaker shall officiate during the unexpired term.

H. Expenses

The necessary expenses of the above officers incurred in the line of duty herein imposed shall be allowed for in the budget but, excepting the Executive Director, this shall not include the expenses of attending the Annual Convention.

CHAPTER VII—TRUSTEES

Section 1—Composition/Voting Power

The Board of Trustees shall consist of (1) the Trustees with power to vote and their duly elected Alternates, each of the latter without power to vote except when the Trustee is not in attendance; and (2) ex officio, the President, President-Elect, Treasurer, Immediate Past President with power to vote, Assistant Treasurer without power to vote except in case the Treasurer is not in attendance, and the Speaker, Vice-Speaker, and Executive Director without power to vote.

Section 2—Authority

The Board shall be the executive body of the Association, with full power to fill vacancies or transact any business that emergencies or the welfare of the Association may require, and perform and exercise all of the rights and duties as specified in this chapter.

Section 3—Election

Election—Trustee and Alternate. The Trustees shall be elected by the respective district societies. If any district fails to meet and elect its Trustee(s) or Alternate Trustee(s) by

the time of the expiration of the incumbent's term of office, the Executive Director of the Association shall cause a special meeting to be called by said district society for the purpose of such election.

Section 4—Meetings and Terms

The Board shall meet as follows: 1. The Board shall meet at least once each quarter of the calendar year, the time, date and location to be fixed by the Board. 2. On the day preceding the first day for the scientific meetings of the Annual Convention of the Association. 3. On the last day of the Annual Convention of the Association after the adjournment of the House of Delegates. 4. At such other times as necessity may require, subject to the call of the Chairman, or on petition of three Trustees. It shall hold no meeting that will conflict with any meeting of the House of Delegates. Notice of each regular meeting shall be given at least ten days before such meeting.

Special meetings may be called at any time by the Chairman or at the request of seven members of the Board. Notice shall be given at least five days before each special meeting. The notice shall specify the general purpose of and business to be transacted at the meeting.

It shall elect a Chairman and a Clerk who, in the absence of the Executive Director of the Association, shall keep a record of its proceedings, and who shall in the absence of the Chairman act as Chairman Pro-Tem. It shall, through its Chairman, make an annual report to the House of Delegates. It shall organize itself at the meeting following the final session of the House of Delegates by electing its Chairman who shall serve for one year. The Chairman of the Board shall be elected by secret ballot. The number of terms of the Chairman shall be limited to not more than three in succession.

Terms of Trustees shall begin with the first meeting of the Board following the final session of the House of Delegates at the Annual Convention.

The term of the elected Trustees shall be for three years and approximately one third of the number shall be elected annually. No Trustee shall be eligible to serve longer than two consecutive three-year terms.

Each Trustee district shall elect an Alternate Trustee whose term of office shall be for three years. The Alternate Trustee shall be elected in a year during which the Trustee is not elected. No Alternate Trustee shall be eligible to serve longer than two consecutive three-year terms. The time given to serving an unexpired term shall not be considered in determining the period within which a Trustee or Alternate Trustee may serve consecutively.

Section 5—Vacancies

In the event of a vacancy occurring from any cause, except expiration of the term of office, in the office of any District Trustee, the duly elected Alternate Trustee from the same district shall succeed to the office of the Trustee in that District for the unexpired term of said Trustee. In the event vacancies occur in any Trustee District in the offices of both Trustee and Alternate Trustee, the vacancies shall be filled by an election by the members of the Association within the Trustee District in which the vacancies occur. A call for such elections shall be issued by the Executive Director of the State Association following a conference(s) with the officers of the District organization. The call shall state the time and place of holding the election and shall be sent registered mail to the County Secretary as filed in the State Director's Office of each component society within the District. Such call shall be mailed within ten days after the State Director has learned of the vacancies. The election may be held at a special or regular meeting at which business other than the election may be transacted. Such election shall be held within fifteen days after the Director of the State Association shall have mailed such call.

Section 6—Organization and Duties

A. Immediately following the conclusion of the annual convention, the Board shall organize by electing a Chairman and a Clerk. The Chairman of the Board of Trustees shall be an ex officio member of all ISMA standing commissions and committees.

The Board of Trustees at its organization meeting, by resolution adopted by a majority of the Trustees in office, may designate two Trustees or members of the Association to complete the Executive Committee. Members of the Committee shall serve until the next organization meeting of the Board and until their successors are elected and qualified. The Executive Committee shall have such powers and duties as may be defined from time to time by resolution of the Board of Trustees.

B. Quorum

Twelve members of the Board shall constitute a quorum.

C. Attendance at Meetings

If any elected Trustee fails, without reason acceptable to the Board, in any one calendar year to attend a majority of the meetings of the Board, said person shall thereby cease to be a Trustee, and the Executive Director shall thereupon take action in accordance with Section 5, Vacancies.

D. Meeting Notices

Notice is given if delivered in person, by telephone, mail or telegram. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, addressed to a Trustee (and other persons entitled to notice) at the Trustee's address then appearing on the records of the Association, with postage prepaid, and if given by telegraph, shall be deemed delivered when the telegram is delivered to the telegraph company.

Notice of any meeting and the object or business to be transacted at a meeting of the Board need not be given if waived in writing, or by telegraph, mail, or telephone before, during, or after such meeting. Attendance at any meeting shall constitute a waiver of notice of such meeting except where attendance is for the express purpose of objecting to the transacting of any business because the meeting is not lawfully called or convened.

E. Business of Association

The Board shall perform all acts and transact all business for or on behalf of the Association and manage the property and conduct the affairs, work and activities of the Association, except as may be otherwise provided in the Constitution or the Bylaws. All resolutions and recommendations of the House of Delegates calling for the expenditure of funds passed by the House of Delegates shall be referred to the Executive Committee, which shall determine whether the expenditures are advisable and so inform the Board of Trustees. If it is decided that the expenditure(s) is inadvisable, the Board shall report, at its earliest convenience, to the House of Delegates the reasons for its action.

F. Journal and Other Publications

The Board shall provide for the publication of and determine the editorial policies, in accordance with the policy enunciated by the House of Delegates, of (1) THE JOURNAL of the State Association, (2) publications as it may deem expedient, (3) a publication for public information and dissemination and (4) all proceedings, transactions and memoirs.

The Board shall provide for and superintend all publications of the Association, and shall appoint an editor and an editorial board, as it deems necessary, and fix the amount of their salaries. The proceedings of the Board for the year shall be reported to the House of Delegates at the Annual Convention and be published in the number of THE JOURNAL which immediately precedes the Annual Convention.

Appoint an editor or editors for all of the Association's publications.

G. Employ Executive

Employ the Executive Director, and fill any vacancy therein, who shall be the person to manage and direct the activities of the Association under the authority granted by the Board.

H. Financial Reports

(1) Have the accounts of the Association audited at least annually.

I. County Visitations, Expenses and Reports

Each Trustee shall be organizer, peacemaker, and censor for the represented district. The Trustee shall visit the counties in the represented district at least once a year for the purpose of organizing component societies where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. The Trustee shall make an annual report of official work and of the condition of the profession of each county in the represented district, the same to be published in the number of THE JOURNAL which is issued immediately preceding the Annual Convention. The House of Delegates may take such action, if any, as it deems appropriate upon such reports. The necessary expenses incurred by such Trustee in the line of the duties herein imposed may be allowed by the Board on a properly itemized statement, but this shall not be construed to include the Trustee's expense in attending the Annual Convention of the Association.

J. Organizing County Societies

The Board shall make careful inquiry into the condition of the profession of each county in the state and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly relations among physicians of the same locality and shall continue these efforts until every physician in every county of the state who can be made reputable has been brought under medical society influence.

In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies; and these societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for county societies, until such counties may be organized separately.

K. Scientific Work

The Board shall, through its officers and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall study and strive constantly to make each Annual Convention a stepping stone to future ones of higher interest.

The Board shall encourage postgraduate and research work, as well as home study, and shall endeavor to have the results utilized and intelligently discussed in the county societies.

L. Interests of the Profession

The Board shall, in connection with the House of Delegates, consider and advise as to the interests of the profession and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation and to diffuse popular information in relation thereto.

M. Charters

The Board shall, upon application, provide and issue charters to county societies organized to conform to the spirit of this Constitution and Bylaws.

N. Board of Censors

The Board shall be the Board of Censors of the Association. It shall consider all questions involving the rights and standings of members whether in relation to other members,

to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the General or Section Meetings shall be referred to the Board without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of component societies on which an appeal is taken from the decision of an individual Trustee, and its decision in all such matters shall be final.

O. Election of At-Large Members to Executive Committee

The Board shall, at its meeting following the close of the House of Delegates, specify the duties and elect two members of the Association, at large, or of the Board, who, with the President, the President-Elect, the most recent living Past President, the Chairman of the Board, the Treasurer, the Assistant Treasurer, with the power to vote in the absence of the Treasurer, and ex-officio the Speaker and Vice-Speaker shall constitute and be known as the Executive Committee. If such members of the Executive Committee be not members of the Board they shall not have the power to vote in the Board.

P. Duties of Alternate Trustee

The duties of the Alternate Trustee shall be:

(a) To represent the Trustee District when the regularly elected Trustee is not in attendance.

(b) To vote only when the Trustee is not in attendance either in the House of Delegates or in the Board meetings.

CHAPTER VIII— THE EXECUTIVE COMMITTEE

Section 1—Composition

The Executive Committee, consisting of seven voting members, constituted as provided in Chapter VII (O) of these Bylaws, shall hold its first meeting immediately following the meeting of the Board held at the close of the last meeting of the House of Delegates in the Annual Convention, and shall organize by electing its Chairman. If the Executive Committee is unable to select a Chairman within thirty (30) days after the final meeting of the House of Delegates, then a meeting of the Board of Trustees shall be called and a Chairman of the Executive Committee shall be selected by the Board of Trustees. Its Secretary shall be the Executive Director of the Association. It shall meet with the Executive Director on the call of the Chairman, or of any three members, to plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Director's office and such other duties as the Board may specify. It shall have all jurisdiction with respect to medical defense activities of the Association, and shall be governed by the rules it adopts concerning that activity and by the Bylaws of this Association. It shall make decisions for the Association, including matters pertaining to THE JOURNAL, during the intervals between the meetings of the Board, and shall report its actions to the Board.

Section 2—Budget Responsibility

It shall prepare a budget for the ensuing fiscal year; and all expenditures of the Association, except those otherwise provided for under the Constitution and Bylaws, shall be governed by the budget. No expense not provided for in the budget or otherwise under the Constitution and Bylaws shall be incurred by any officer, commission or committee. A committee, commission or officer may submit a request for funds to meet unusual expenses not included in the annual budget, and the Executive Committee shall have the power, by a two-thirds vote, to amend the budget to provide such funds.

Section 3—Investment of Surplus Funds

The investment of all surplus funds of this Association shall be under the direct control and management of the Executive Committee subject to instructions in regard there-

to which may be given by the Board at its option. The Executive Committee shall have the right and is encouraged to obtain advice and counsel in regard to the discharge of the duties covered by this chapter of the Bylaws.

Section 4—Student Loans

The Executive Committee shall have the authority to make loans to medical students in accordance with the terms and conditions under which funds are made available for that purpose. Rules and regulations adopted shall be subject to the approval of the Board. The Executive Director shall have the duty and responsibility of keeping minutes of all transactions and shall file a copy of such minutes, as well as a copy of all papers pertaining to any application or loans, in the Headquarters Office of the Association.

Section 5—Vacancy

A vacancy on the Executive Committee shall be filled by an election by the Trustees at the next regular meeting of the Board following the occurrence of such vacancy.

CHAPTER IX—ORGANIZATION OF ACTIVITIES AND RESPONSIBILITIES

Section 1—Creation of Committees and Commissions

The organization of the Association, the performance of which is not provided elsewhere in the Constitution or Bylaws, and is not carried on in the meetings of the Board or of the House of Delegates, or by special committees created by the Executive Committee, the Board or the House of Delegates, may be performed by the following committees and commissions:

- The Grievance Committee
- The Future Planning Committee
- The Medico-Legal Committee
- Medical Education Fund Committee

The Commissions are as follows:

COMMISSION ON MEDICAL SERVICES

This Commission encompasses the fields of:

- Emergency Medical Services
- Aging
- Public Health
- Governmental Medical Service Programs
- Voluntary Health Agencies
- Sports and Medicine
- Medical Economics and Insurance

COMMISSION ON MEDICAL EDUCATION

This Commission encompasses the fields of:

- Licensure
- Accreditation
- Education Program

COMMISSION ON LEGISLATION

This Commission encompasses the fields of:

- State Legislation
- Federal Legislation

COMMISSION ON CONSTITUTION AND BYLAWS

COMMISSION ON PUBLIC RELATIONS

This Commission encompasses the fields of:

- Public Information
- Special Activities
- Interprofessional Relations

COMMISSION ON CONVENTION ARRANGEMENTS

This Commission encompasses the fields of:

- Specialty Medicine

COMMISSION ON PHYSICIAN IMPAIRMENT

This Commission encompasses the fields of:

- Alcoholism
- Drug Abuse
- Neuropsychiatric Illness
- Physical Infirmary

Section 2—Committee Structure

Except as otherwise stated in the Bylaws, with specific reference to Chapter V, Section 8A, a committee shall consist of not less than 4 nor more than 5 members, appointed from the general membership of the Association and shall be appointed annually by the President. The President shall also appoint the Chairman of each committee. The Committee Chairman shall appoint a Vice Chairman.

Section 3—Commission Structure

The President may appoint one commission member for each 600 active members or major fraction thereof, but in any event, each district shall have one member on each commission. The original appointees in each commission shall be divided into three groups by lot. The first group shall serve three years; the second, two years; and the third, one year. Thereafter, each incoming President shall appoint five members of each commission to fill the vacancies resulting from the expiration of the terms of members, and such appointments shall be for three years. The President shall also appoint members to fill the unexpired term where any vacancy occurs through death, resignation or otherwise. The President shall appoint the Chairman of each commission. The Commission Chairman shall appoint a Vice Chairman.

Section 4—Removal of Members

The President shall have the power, with the approval of the Board, to remove any member of any committee or commission where such member, for any reason, does not or cannot work at attempting to perform the duties pertaining to membership on such committee or commission.

Section 5—Terms

Unless otherwise provided in these Bylaws, no member of a commission shall serve on the same commission more than two consecutive terms, but this shall not prevent his serving more than two terms if the term of another member intervenes. The time given to the serving of an unexpired term shall not be considered in determining the period within which a member may serve consecutively.

Section 6—Initial Meeting

Within sixty days after the meeting of the State Convention, the President will call all commissions and committees into a joint meeting in order to give a statement of the duties and responsibilities of all committees and commissions, call special attention to any immediate problems confronting the Association, and assign such problems or parts thereof to appropriate committees and commissions. In these meetings the commissions may provide for such sub-commissions within the separate commissions as they may deem advisable. Each committee or commission shall have the right to call upon other committees, commissions or members of the profession for counsel and advice with respect to its work.

Section 7—Coordination of Activities

Each committee and commission shall have the privilege and is encouraged to have joint meetings with any like committee or commission of the Auxiliary where such like committee or commission exists, for the purpose of coordinating activities to make them more effective in the medical service of the public and the intent of the Association.

Section 8—Duties and Responsibilities

Each committee and commission shall have the duty and responsibility of keeping constantly and currently informed

on the matters within the area of its special interest and activity; of studying the conditions within that area with the purpose of finding possibilities of improvement; of finding the best solutions it can to the specific problems referred to it; of contributing in its area to the achievements of the Association as a whole in the protection and improvement of the health of the whole human family and finally of making all its efforts useful by passing on to the Association in the most effective manner possible the results of its studies and activities in its own area of special interests.

A. The Grievance Committee

—The duties of this committee shall be to receive complaints, appeals or suggestions from physicians or lay persons concerning professional conduct. It shall attempt to find the facts regarding any matter brought to its attention, through procedures proper and appropriate to that end, and shall attempt to adjust differences between patients and physicians, and between physicians. It may, if it believes the facts justify such action, cite a member of the Association to the Board of the State Association. It shall, subject to the approval of the Board, draw up a set of rules and regulations governing its procedure and official action.

B. The Future Planning Committee

—The function of this committee shall be to study and anticipate future trends and to stimulate the various commissions in coordinated directions so there is concord to the entire operation of Indiana State Medical Association. It is not contemplated that it be an operational committee.

C. The Medico-Legal Review Committee

—The Medico-Legal Review Committee shall consist of three members selected from the Indiana State Medical Association whose duty it shall be to meet in joint session and work with a similar committee of three members of the State Bar Association to be appointed by the Indiana State Bar Association. These three members of the Medical Association shall function as the medical representatives provided for in the Joint Inter-Professional Code of the State Medical Association and the State Bar Association to carry out the purposes of that Code. Its duties shall be as stated in that Code in the form in effect from time to time as approved by the Association, and in all other medico-legal matters.

D. The Indiana Medical Education Fund Committee.

—The purpose of this committee shall be to promote, develop and improve medical education in the Indiana University School of Medicine for the general benefit of the entire public by obtaining and using funds from private sources to accomplish that result. The funds collected will be deposited in a trust and at periodic intervals the committee shall make a distribution from the trust to be used by the Indiana University School of Medicine. The Indiana Medical Education Fund Committee shall consist of eight persons, five of whom shall be from the Indiana State Medical Association, appointed by the President thereof, all of whom shall be voting members. There shall be three additional members of the committee who shall be ex officio and non-voting and they shall be the Dean of the Indiana University School of Medicine, or the Dean's designee, the President of Indiana State Medical Association, and the Executive Director of the Association who shall also act as Secretary of the Committee. The actions of this committee shall be certified to the Executive Committee. Each year a report of the Committee's activities, including a financial accounting report of the fund itself as administered by the trustee, shall be made part of the Executive Committee's annual report to the House of Delegates. The five members shall serve staggered terms to insure continuity. Two members shall be appointed to serve three year terms, two shall serve two year terms, and one shall serve a one year term.

E. Negotiations Committee.

—The Negotiations Committee shall consist of five physician members appointed for terms of four years each. The

initial nomination shall be staggered to insure continuity. Two members shall be appointed to four year terms. One member shall be appointed for a three year term and one member shall be appointed for a two year term and one member shall be appointed for a one year term. The purpose of the Negotiations Committee is to become involved in proposals which affect the practice of medicine that include, but are not limited to, negotiating with third parties and various other government agencies at specific direction from the Board of Trustees.

F. The Commission on Medical Services

—The Commission on Medical Services shall concern itself and assume special responsibility in obtaining information and giving counsel and advice to the Association with respect to all matters in which medical service comes into contact with any existing or proposed functions of government, including civil defense, rehabilitation of persons handicapped by abnormality or disease, medical service in welfare departments, maternal and child health programs sponsored through governmental agencies, medical care of military personnel, plans and programs for medical care of veterans, medical care for dependents of those in uniformed services of the government, plans and programs of the government for medical care now existing or which may hereafter be adopted by any special group, government programs for elimination of venereal disease and other communicable diseases, and all programs and plans for medical care to be provided through municipal, state or federal governments.

G. The Commission on Medical Education

—The Commission on Medical Education shall maintain liaison with, and try to be of assistance to, medical schools and the licensing board; and shall keep in contact with, and endeavor to assist in improving undergraduate education, postgraduate education, intern training, resident training, preceptor instruction, and public school health education.

H. The Commission on Legislation

—The Commission on Legislation shall study all legislation, both state and national, and all local legislative trends and movements, as to their effect upon the practice of medicine and the protection of the public health; shall keep the profession informed at all times concerning the matters within its area of responsibility; shall conduct investigations of legislative proposals; and shall maintain liaison with members of the State Legislature and the United States Congress, and with the legislative activities of the American Medical Association. It shall strive to implement and make effective the legislative proposals adopted by the Association.

I. The Commission on Constitution and Bylaws

—The Commission on Constitution and Bylaws shall keep in contact with the developments and changes in procedures in carrying on the work of this Association; shall suggest revisions necessary to keep the Constitution and Bylaws always in accord with the practices and procedures best adapted to the functioning of the Association; and shall keep the practices and procedures of the Association consistent with the provisions from time to time contained in the Constitution and Bylaws—to the end that all members of the profession, by reference to the Constitution and Bylaws, may be able to obtain accurate information regarding procedure and practice within the Association, and that hampering of such procedure and practice by obsolete provisions in the Constitution and Bylaws may be avoided.

J. The Commission on Public Relations

—The Commission on Public Relations shall collect and organize for dissemination to the public all matters of public interest within the field of medicine, including the activities of other commissions in which the public interest would be involved, and including also the achievements in the advancement of medicine which would be of interest to the public; shall disseminate all such information through the use of whatever media the commission may find adaptable to that

purpose so that such information may be brought to the public in the most effective and convincing manner; and shall develop and maintain the relations of the medical profession with the public in such a way as to give the lay public a better knowledge and understanding of the aims, objectives and value of the profession to the public.

K. The Commission on Convention Arrangements

—The Commission on Convention Arrangements, with the advice and assistance of the Executive Director, shall provide suitable accommodations for meetings of the Association, including the House of Delegates, Board, and of their respective committees, the scientific and technical exhibits, and in conjunction with the Executive Director, shall have general charge of all the arrangements. Its Chairman shall report an outline of the arrangements to the Executive Director of the Association for publication in *THE JOURNAL* and in the official program, and shall make additional announcements during the session as occasion may require. The arrangements and the character of any and all technical exhibits must meet with the approval of the Executive Committee of the Association.

—It shall, with the approval of the Executive Committee, prepare a program for scientific work for the Annual Convention in which shall be included the respective programs for section meetings which shall be prepared through cooperation with the officers of the various sections; and it shall, with the approval of the Executive Committee, arrange for scientific exhibits as a part of the Annual Convention.

—The general, scientific and sectional programs, and the financial arrangements to provide for them must be approved by the Executive Committee before being officially announced.

L. The Commission on Physician Impairment

—The Commission on Physician Impairment shall develop a program to recognize, treat and rehabilitate physicians who are impaired by neuropsychiatric illness, physical infirmities or alcohol and other substance dependence. The Commission will encourage informal and formal referral of impaired physicians through county medical society screening committees.

Section 9—Ex Officio Members

The President, President-Elect, Executive Director, Speaker, Vice Speaker of the House and the Chairman of the Board of Trustees shall be exofficio members of all the foregoing committees and commissions without voting rights where their inclusion on the committee or commission is not otherwise provided for in these Bylaws.

CHAPTER X—RECIPROCITY OF MEMBERSHIP WITH OTHER STATE SOCIETIES

In order to broaden professional fellowship, this Association is ready to arrange with other State Medical Associations for an interchange of certificates of membership so that members moving from one state to another may avoid the formality of reelection.

CHAPTER XI—REFERENDUM

A general meeting of the Association may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Association, who may vote by mail or in person, and if the members voting shall comprise a majority of all members of the Association, a majority of such vote shall determine the question and be binding on the House of Delegates.

The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding paragraph, and the result shall be binding on the House of Delegates.

CHAPTER XII—THE SEAL

The Association shall have a common Seal, with power to break, change or renew the same at pleasure.

DIVISION FOUR— COUNTY AND DISTRICT SOCIETIES

CHAPTER XIII—COUNTY SOCIETIES

Section 1—Charters

All county societies now in affiliation with this Association or those which may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws, shall, on application receive a charter from and become a component part of this Association. The acceptance or retention of this charter shall be regarded as a pledge on the part of said component society to conduct itself in harmony with the letter and spirit of this Constitution and Bylaws and other rules and resolutions of this Association.

Charters shall be issued only upon approval of the Board and shall be signed by the President and Executive Director of this Association. The Board shall have authority to revoke the charter of any component society whose actions are in conflict with the letter and spirit of this Constitution and Bylaws.

Only one component medical society shall be chartered in any county. Where more than one county society exists, friendly overtures and concessions shall be made, with the aid of the Trustee for the district if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Board, which shall decide what action shall be taken.

Section 2—Membership Qualifications

Each county society shall be judge of the qualifications of its own members, but, as such societies are the only portals to this Association and to the American Medical Association, every reputable and legally registered physician who holds a degree of Doctor of Medicine, a degree of Bachelor of Medicine or who holds a valid, unrestricted license to practice medicine and surgery, and who does not practice or claim to practice, nor lend support to, any exclusive system of medicine, shall be eligible for membership. Provided, however, that each county society may deny membership in such society for infraction or violation of any law relating to the practice of medicine or of the Constitution and Bylaws of such society, the Constitution and Bylaws of the Indiana State Medical Association or for a violation of the Principles of Medical Ethics of the Indiana State Medical Association; and may, after due notice and hearing, censor, suspend or expel any member for any such infraction. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every physician in the county to become a member.

Section 3—Right of Appeal

Physicians who may feel aggrieved by the action of the society of their county in refusing them membership, or in suspending or expelling them, shall have the right to appeal to the Board, and its decision shall be final.

In hearing appeals the Board may admit oral or written evidence as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Trustees in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Section 4—Membership Transfer

When members in good standing in a component society move to another county in this state, their names shall be transferred without cost to the roster of the county society into whose jurisdiction they move, provided the transfer is approved by majority vote of the membership of said society to which the transfer is proposed.

Physicians who have the major part of their practice in a county other than the county in which they reside may hold membership in the county society of their residence or in the county society of the county in which they have the major part of their practice. However, physicians shall not hold active membership in more than one county society at the same time.

Section 5—Direction of Profession

Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and professional status of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified and honorable physician in the county.

Section 6—Selection of Delegates

At the annual business meeting for election of other officers, in advance of the Annual Convention of this Association, each county society shall elect Delegates and Alternates to represent it in the House of Delegates of this Association, and the Secretary of the society shall send a list of such Delegates and Alternates to the Executive Director of this Association annually on or before February 1.

Section 7—Secretarial Duties

The Secretary of each component society shall keep a roster of all its members and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making the required annual report the Secretary shall be certain to account for every physician who has lived in the county during the year.

The Secretary of each component society shall prepare and send to the Trustee of the Secretary's district a quarterly report briefly stating the activities of the Secretary's county society including meetings, programs, changes in officers and personnel of membership. A copy of this quarterly report to the Trustee shall also be sent to the Executive Director of the State Association. The State Association shall supply each County Secretary a form for these reports.

Section 8—Fiscal Year and Dues

The fiscal year of the Association shall be from October 1 to September 30 of the succeeding year. The dues shall be collected by the calendar year and payable in advance.

Unless collected by the Indiana State Medical Association, the Secretary of each component society shall forward the dues for the society to the Executive Director of this Association and shall furnish the State Association Headquarters with a roster of officers, members and a listing of non-affiliated physicians of the county, on or before January 1 of each year, and shall promptly report thereafter the names of any new members elected to membership in the society, and promptly forward to the Executive Director of this Association the dues for such members.

The dues and the rights and benefits of all members shall be as provided in Chapter I, Section I, et seq. of the bylaws.

Provided, however, that physicians elected to their first membership in this Association during the first six months of any year shall pay the regular annual dues for that year; and those elected to their first membership after July 1 of any one

year shall pay fifty percent of the annual dues as dues for the remainder of that year. Interns and residents shall pay annual dues during their term of service in the hospital at a reduced rate established by the Board of Trustees.

In the event the county society relieves a member from the payment of dues on account of financial hardship, the Secretary of the county medical society shall recommend in writing to the Trustee of the district the relief from State Association dues of said member of the society, showing why such recommendation should be granted. The Trustee in turn shall present the recommendation to the Board, which shall have the power to relieve a member of dues.

Section 9—Failure to Pay Dues

Any county society which fails to pay its dues or make the report required by February 1 of each year shall be held suspended, and none of its members or delegates shall be permitted to receive any of the publications of the Association or participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Section 10—Secretary Direction

Each county society shall be held responsible for the faithfulness in the performance of duty on the part of its Secretary in making reports and remitting dues to the Association.

Section 11—Constitution and Bylaws

Each component society shall have its own Constitution and Bylaws, which shall not be in conflict with the Constitution and Bylaws either of this Association or of the American Medical Association. An up-to-date copy thereof shall be filed with the Executive Director of the Indiana State Medical Association not later than May 1 of each calendar year, or where such copy is so on file and no change has been made, then it shall be sufficient to file a certificate to that effect with said Executive Director.

CHAPTER XIV— TRUSTEE DISTRICT MEDICAL SOCIETIES

Section 1—Composition

A Trustee District Medical Society, hereinafter called the district society, shall be a society whose members consist of the members of the county medical societies in the counties which constitute the Trustee district.

Section 2—Number of Districts

The state shall be divided into thirteen Trustee districts with the boundary lines and numbers of each district to be as follows:

First District—Posey, Vanderburgh, Warrick, Spencer, Perry, Pike and Gibson Counties.

Second District—Knox, Daviess, Martin, Monroe, Owen, Greene and Sullivan Counties.

Third District—Dubois, Crawford, Harrison, Floyd, Clark, Scott, Washington, Orange and Lawrence Counties.

Fourth District—Jackson, Jennings, Jefferson, Switzerland, Ohio, Dearborn, Ripley, Decatur, Bartholomew and Brown Counties.

Fifth District—Clay, Vigo, Vermillion, Parke and Putnam Counties.

Sixth District—Shelby, Rush, Fayette, Franklin, Union, Wayne, Henry and Hancock Counties.

Seventh District—Morgan, Johnson, Marion and Hendricks Counties.

Eighth District—Madison, Delaware, Randolph, Jay and Blackford Counties.

Ninth District—Fountain, Montgomery, Boone, Hamilton, Tipton, Clinton, Tippecanoe, Warren, Benton, White, Newton and Jasper Counties.

Tenth District—Porter and Lake Counties.

Eleventh District—Carroll, Howard, Grant, Huntington, Wabash, Miami, and Cass Counties.

Twelfth District—Wells, Adams, Whitley, Allen, Noble, DeKalb, LaGrange and Steuben Counties.

Thirteenth District—Pulaski, Fulton, Kosciusko, Marshall, Starke, LaPorte, St. Joseph and Elkhart Counties.

Section 3—Constitution and Bylaws

Each district society shall adopt a Constitution and Bylaws, which shall not conflict with the Constitution and Bylaws of the State Association, and only one district society shall exist within any one Trustee district. The authorized district society in each Trustee district shall receive a charter from the State Association, and the Secretary of the district society shall have custody of the charter.

Section 4—Officers

Each district society shall organize by electing a President, a Secretary and a Treasurer and Trustee(s) and Alternate Trustee(s) as the current Trustee(s) term and Alternate Trustee(s) term for the district expires, and such others as may be provided for in its Constitution and Bylaws. The office of Secretary and Treasurer may be held by the same physician. The Trustee(s) shall continue to have the same duties and terms as are set forth in the Constitution and Bylaws of this Association.

Section 5—Trustee Allocation

Each district society shall have one Trustee and one Alternate Trustee for each 600 active members or major fraction thereof but in any event each district shall have one Trustee and one Alternate Trustee. The term of each trusteeship newly created by the numerical growth of a district shall begin at the organization meeting of the Board immediately following the adjournment of the second meeting of the House of Delegates at the next annual meeting, in accordance with Chapter VII, Section 6A.

Section 6—Dues

The dues of the district society, in an amount fixed by the district society to meet the society needs, shall be collected by the Secretaries of the component county societies, or by the Indiana State Medical Association and delivered to the Treasurer of the district society. The Secretary of each district society shall report to the office of the Indiana State Medical Association the names and addresses of the members of the district society, together with a copy of the minutes of each meeting of the district society.

Section 7—Meetings

Each district society shall meet at least once each year at a time and place to be fixed by the district society. On or before January 1 of each year each district society shall notify the headquarters of the State Association of the time and place of the annual district meeting for that year; but if no such notification has been received in the headquarters on or before the January meeting of the Board, the Trustee shall fix the time and place of the district meeting, and notice of such meeting shall be sent to the members of the county medical societies in such district.

Section 8—Notification to Headquarters

Whenever a district society is to elect a Trustee and/or Alternate, the headquarters office of the State Association shall so notify the individual members of such district society not later than six weeks in advance of said election date.

The district society shall send to the headquarters office of the State Association a copy of its program showing the time and place of its meetings, early enough that the headquarters office may notify all members within the district of the meeting at least thirty days prior to the date thereof.

Section 9—Recommendation of Nominees to the Board of Directors of Mutual Medical Insurance, Inc.

Each district medical society may recommend nominees from its membership (a physician subscriber to Mutual Medical Insurance, Inc.) to serve on the Board of Directors of MMI. The physicians recommended will be submitted for nomination at the annual meeting of Mutual Medical Insurance, Inc. The ISMA Board of Trustees may recommend additional nominees.

DIVISION FIVE—MEDICAL DEFENSE

CHAPTER XV—MEDICAL DEFENSE ADMINISTRATION, AUTHORITY AND PROCEDURES

Section 1—Administration

The administration of medical defense of this Association shall be intrusted to the Executive Committee, which shall constitute the Medical Defense Committee of the Association.

Section 2—Authority

This committee shall have full authority governing all matters pertaining to this Chapter. In order to insure a fair and full presentation of defense for member physicians sued or against whom claim is made, the committee shall have the power to employ and pay an attorney of their choice as a consultant to the committee, and such other expenses as the committee may approve as necessary. It is expected that the committee's consultant attorney will provide necessary communication with the member-physician's personal attorney.

Section 3—Annual Report

The Medical Defense Committee shall make an annual report to the House of Delegates of the cases in which it has been of service to members and furnish an account of the money expended, such report to be published in THE JOURNAL of the Indiana State Medical Association at the time and in the manner that reports of other committees of the Association are published.

Section 4—Liability

The Association shall not be liable for any damage awarded, but shall be liable only for such expenses for the legal consultation for its members as may be incurred in accordance with the terms of these Bylaws.

Section 5—Eligibility

The Association shall not undertake the consultation of a member in any case in which the member who applies for medical defense by the Association has failed to pay annual dues for the year in which services were rendered which are the basis of the suit; and medical defense by the Association shall not be available in any suit based on services rendered during any period of delinquency in the payment of dues. Dues are payable on January 1, and become delinquent on February 1 of each year. The membership card of this Association, duly signed and dated by the Executive Director, shall be considered the only bona fide evidence of payment of dues or membership in this Association.

The Indiana State Medical Association shall in no case provide medical defense consultation against any action for alleged malpractice against any physician unless such physician was a member of this Association in good standing at the time the services, which are the basis of the suit, were rendered.

Section 6—Filing for Defense

A member seeking the services of the Medical Defense Committee in connection with litigation brought or threat-

ened must send to the Executive Director of the Association for an application blank. After completing the data concerning the case the member shall submit to a local committee of the county medical society—to be composed of the President, Secretary and one other member in good standing who may be nominated by the defendant—a full statement of the question at issue, including the diagnosis and treatment of the case and the names of physicians, nurses and other persons having knowledge of the same, who may be summoned as witnesses.

Section 7—County Society Committee

The committee of the county medical society shall immediately, after an investigation of all the circumstances and facts, transmit its report, with recommendations, to the Medical Defense Committee of this Association.

Section 8—Appeal

In the event that the county committee shall fail to recommend the case as one worthy of the recognition of this Association, a direct appeal may be made to the Medical Defense Committee of this Association, whose decision shall be final.

Section 9—Deceased Member

Suits brought against the estate of a deceased member shall be defended as if that member were alive; provided that such member was in good standing in the Association at the time of death and that services for which indemnity is asked were rendered while the deceased was a member in good standing.

Section 10—Locality Restrictions

Medical defense shall not be available to members living outside of the State of Indiana at the time services were rendered for which indemnity is claimed.

Section 11—Adoption of Rules

The Medical Defense Committee shall have power to adopt such other rules, not in conflict with the foregoing, as in its judgment may seem necessary.

Section 12—Terms of Defense

Medical defense as provided for by this Association shall be available to a member under the terms stated in these Bylaws only in the defense of civil action for alleged malpractice, and shall not be available if such alleged malpractice occurred when the member was under the influence of any intoxicant or narcotic while rendering the service in question.

DIVISION SIX—MISCELLANEOUS

CHAPTER XVI—DIVISION OF FEES

This Association does not countenance or tolerate fee-splitting, division of fees, or commission paying directly or indirectly, and any member found guilty shall be expelled from membership.

CHAPTER XVII—PARLIAMENTARY PROCEDURE

The deliberations of this Association shall be governed by parliamentary usage as prescribed in the current edition of Sturgis Standard Code of Parliamentary Procedure, when not in conflict with this Constitution and Bylaws.

CHAPTER XVIII—AMENDMENTS

Section 1. These Bylaws may be amended at any meeting by a majority vote of all the Delegates present at that meeting. Amendments to the Bylaws must be submitted to the Association 45 days in advance of the meeting. These amendments must be presented to the Commission on Constitution and Bylaws prior to the meeting and are eligible for passage after lying on the table for one day.

Section 2. Any other Bylaw amendment presented to the House of Delegates will not be eligible for consideration by the House of Delegates until the next meeting, unless two-thirds majority of the FIRST House votes to consider the amendment as presented. If passed by the majority of the House, it becomes effective immediately and shall be submitted to the Commission on Constitution and Bylaws for its consideration.

CHAPTER XIX—MEDICAL ETHICS

The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

AMERICAN MEDICAL ASSOCIATION

Principles of

MEDICAL ETHICS

Preamble:

The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.

- I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.
- II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.
- III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.
- IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law.
- V. A physician shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.
- VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.
- VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community.

WHAT'S NEW?

CONTINUED FROM PAGE 254

CENTURY MANUFACTURING has developed a new whirlpool bathing system designed especially for use with immobilized patients who must remain in a recumbent position. The system includes the tub and transfer unit with hydraulic lift for movement from bed to bath and back to bed. It operates on standard electric and water supply.

3M SURGICAL PRODUCTS DIVISION announces a comfortable, disposable plate for electro-surgery procedures. It requires no gel or electrolyte solution and adheres easily to any body contour. The Scotchplate Conductive Adhesive Dispersive Electrode is a very thin flexible plate with a continuous conductive adhesive coating. It attaches easily, creates no skin trauma upon removal, and is non-irritating and non-allergenic.

TWO NEW EDUCATIONAL AIDS are available in bulk quantities from the American Academy of Pediatrics. The "First Aid Chart" gives advice in the case of poisoning and also advises on cardiopulmonary resuscitation for infants and children. A comic book-style guide to breathing exercises for asthmatic children is also available. Both publications are available at 100 or more copies at the rate of \$40 per 100 copies. The address is P.O. Box 1034, Evanston, Ill. 60204.

"RADIOLOGY LETTER" is a new twice-monthly newsletter written exclusively for professionals in radiology and diagnostic imaging. It is published by Dr. Allan F. Pacela. Regular features include: new technology and procedures, government regulatory decisions, accurate and verified reports on product recalls and safety hazards and recent developments in professional, legal and business activities. One-year subscriptions are \$120. Charter subscribers may sign up now with a 25% discount.

DOUBLEDAY has issued *Where Did Everybody Go: The Portrait of an Alcoholic*, by Paul Malloy. It is autobiographical. Malloy is the author of several books and is a syndicated columnist for the *Chicago Sun-Times*. His story has a happy ending but describes vividly what life is like for the alcoholic and his family. 215 pages, \$11.95.

CONTROL-O-FAX has a Free Sample Kit, for a doctor entering practice, that offers sound advice and helpful tips about operating the business side of the professional office. The Kit contains samples of the forms used in the Control-o-fax Office System and instructions on how they are incorporated into office procedure, a certificate for a free 30-day supply of forms, up to a \$50 saving on the first order, and the Office Systems Handbook to explain how the Control-o-fax System works.

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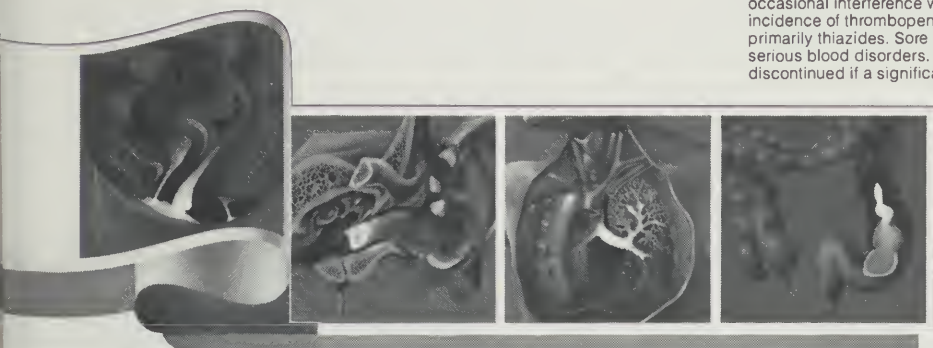
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In accepting advertising for publication, THE JOURNAL has exercised reasonable precaution to insure that only reputable factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services and medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

BactrimTM (trimethoprim and sulfamethoxazole) succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...

a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...

effective against both major otic pathogens... with b.i.d. convenience

in acute exacerbations of chronic bronchitis in adults...

clears the sputum and lowers its volume... on b.i.d. dosage

in shigellosis...

faster relief of diarrhea than with ampicillin²

multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose[®] packages of 100; Prescription Paks of 20 and 28. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose[®] packages of 100; Prescription Paks of 40. Pediatric Suspension, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). Suspension, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS.

Clinical studies show that patients with group A β -hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: General: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

BactrimTM succeeds

in recurrent urinary tract infections*



from site to source

Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue¹...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations¹... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae^{1,2} with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. 2. Data on file, Medical Department, Hoffmann-La Roche Inc.

BactrimTM DS

160 mg trimethoprim and 800 mg sulfamethoxazole

DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience



* due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

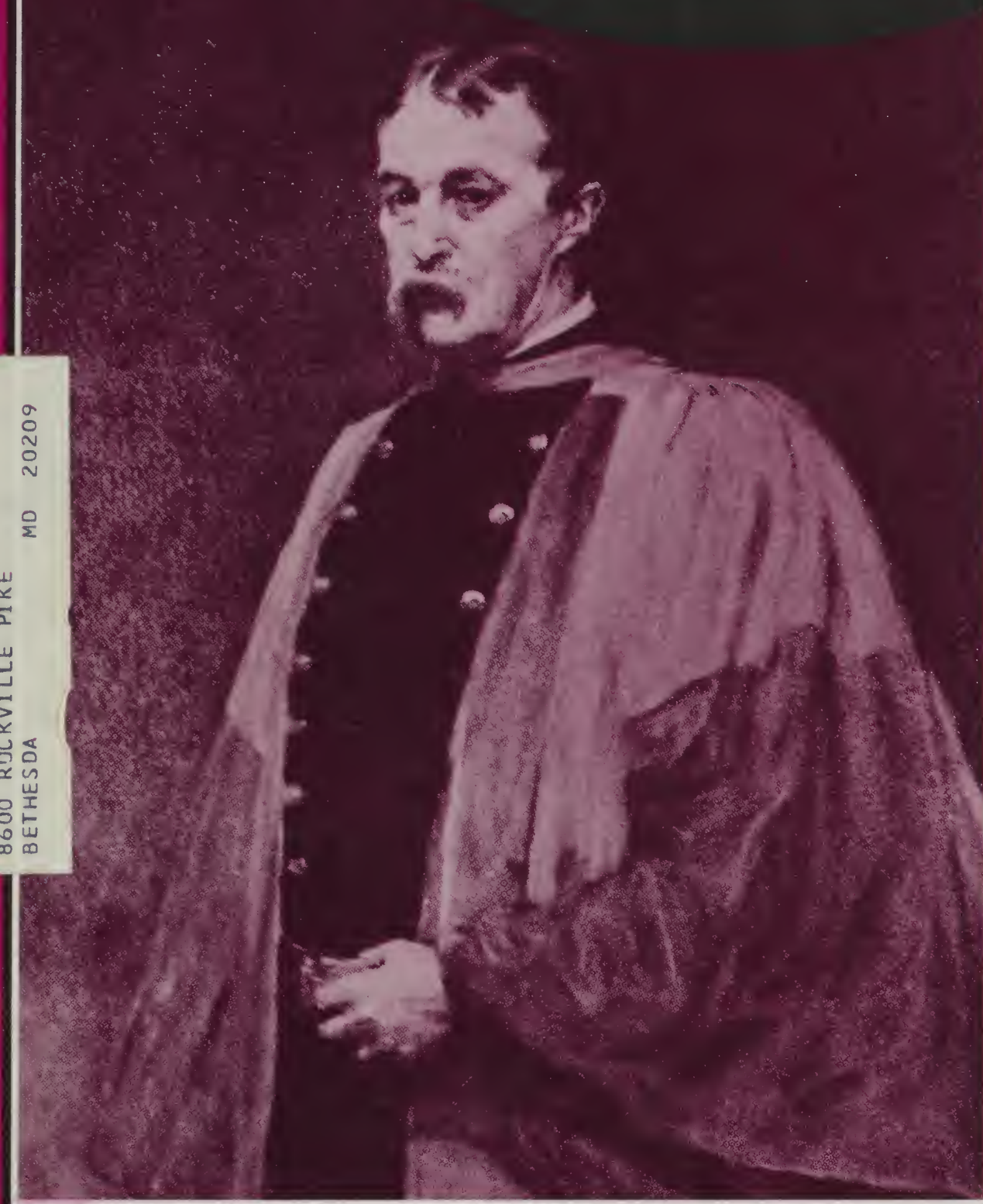
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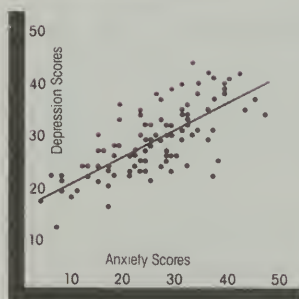
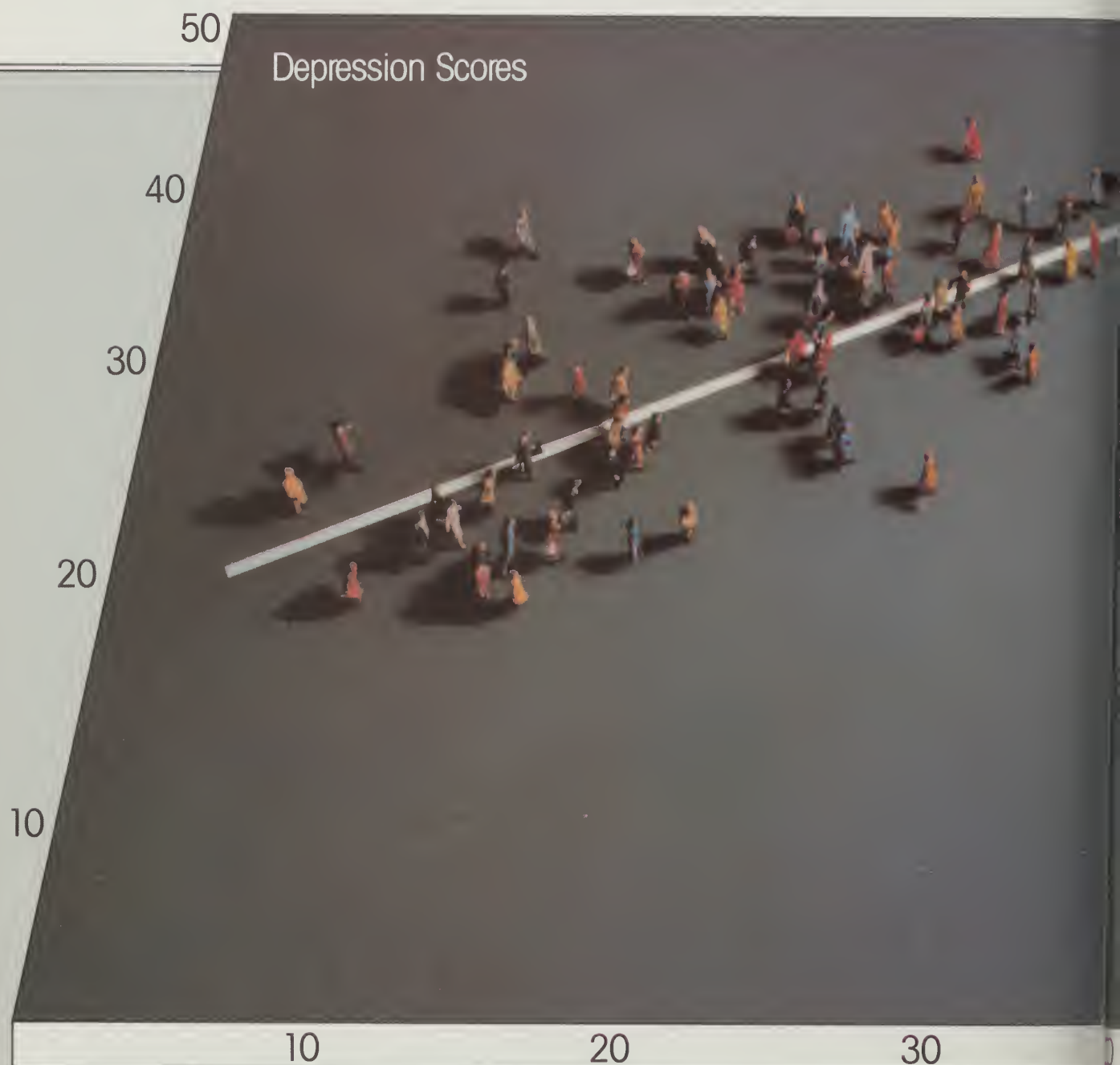
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JOHN SHAW BILLINGS, M.D.
Inside: The Story of His Life

FOR THE 7 OF 10 NONPSYCHOTIC



Clear correlation between anxiety and depression³

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

³Adopted from Cloghorne, J. The anxiety-depression syndrome. *Psychosomatics* 11:438-441, Sept-Oct 1970.

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS^{1,2}

Most depressed patients are also anxious. . .

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.^{1,2} One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.³ As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.⁴ Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.⁵ Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jarvik ME. New York, Appleton-Century-Crafts, 1977, p. 316. 2. Schatzberg AF, Cale JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry* 35:1359-1365, 1978. 3. Claghorn J: The anxiety-depression syndrome. *Psychosomatics* 11:438-441, 1970. 4. The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry* 137:1163-1172, 1980. 5. Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology* 61:217-225, 1979.

In moderate depression and anxiety

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Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

Anxiety Scores

50

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies.

Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

WHAT'S NEW?

MEDEC announces the release of its latest Patient Education Video Program on "Tension Headache." It is a full-color videotape on the pathophysiology and general treatment measures of tension headache. The programs are available in 3/4-inch, VHS and Beta formats.

ORGANON DIAGNOSTICS is introducing **STREPTO-SEC™**, a new test for grouping the four major pathogenic beta-hemolytic streptococci. Groups A, B, C, and G, the groups of greatest concern, are identified to enable the physician to select proper therapy and be alert for complications that may vary with the several groups.

JOHN BUNN COMPANY announces its new **BORAS 290 PLUS Oxygen Rich Air Concentrator** for use by chronic obstructive pulmonary disease patients. It will produce up to 94% oxygen concentration at 1 liter per minute and go up to 4 liters a minute at 75% concentration of oxygen from room air. It measures 18x10x16 inches, weighs 69 pounds and is approved by Underwriters Laboratories. It uses 280 watts energy.

A NEW COMPACT resuscitation cart and system designed for emergency rooms, intensive and coronary care units and recovery areas is announced by Hewlett-Packard. The HP 78662A cart will hold a new microprocessor-based defibrillator/monitor and provide storage for other resuscitation equipment and supplies. Easy to maneuver up to bedside and thru doors and corridors. Optional locks for the drawers.

SQUIBB announces that **Capoten®** (captopril) has FDA approval for treatment of hypertensive patients in the United States. It is indicated for patients, on multi-drug regimens, who have either failed to respond satisfactorily or have developed unacceptable side effects. Capoten was originally synthesized by Squibb and has previously been accepted in 14 foreign countries for treatment of hypertension.

MIDMARK has a new line of reflector lighting for examinations and surgical procedures. Series 150 features virtually shadow-free light and is available in floor, ceiling and wall mount models. The lights are cool. Each lamp has a detachable, sterilizable handle.

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News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.



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The JOURNAL

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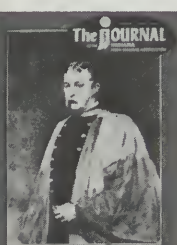
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ABOUT THE COVER

Hoosier-born Colonel John Shaw Billings, M.D., is depicted wearing his Army uniform and the scarlet gown he received with his honorary Doctor of Civil Law at Oxford University in 1889. The original oil painting, by Cecilia Beaux, hangs in the National Library of Medicine, Bethesda, Md. A biography of Dr. Billings appears in this issue.



EDITORIALS

Handicapped Children Do Not Create Psychological Problems for Siblings

Children generally do not suffer from psychological problems as a result of having a handicapped brother or sister. *Pediatrics* recently published an article that told of a study of families of children with such handicaps as cystic fibrosis and cerebral palsy. Researchers did not find any differences in the normal siblings of such families as compared to children in families with no handicapped members. This is contrary to the usual view. One observed difference was that handicapped families were more apt to have normal children who got into more fights and had more problems in school.

Age, sex, birth order and the severity and type of their siblings' handicaps did not appear to be a factor. The mothers in the handicap families did not think their increased attentions to the handicapped youngsters diminished their normal attentiveness to the normal siblings. Occasionally, when circumstances mandated less attention to the normals, no adverse psychological effect was observed by the parents.

The authors advise caution. Their findings are counter to the general impression. Continued observations will be needed before a universal rule may be established.

Physicians Learning New Ways to Help Handicapped Children and Their Parents

Help for handicapped children is being organized through a program of the American Academy of Pediatrics. Dr. Robert Hannemann, Lafayette, chairman of the Indiana Chapter of the Academy, announces that the program will be active in Indiana. The U.S. Department of Education is funding the Academy program to acquaint the profession with new developments about the diagnosis and treatment of handicapped children.

The goal is to train 5,000 primary care physicians in the U.S. during the next two years.

The training also will stress methods by which help may be afforded such children in family, school and community surroundings.

In addition to learning various new and improved situational and environmental therapies, physicians will learn to tell parents that their child is handicapped. How to aid parents who are disturbed by the news will be a part of the counseling.

The impact which the handicap imposes on siblings and the interpersonal relationship of handicapped children with the physician are also subjects for discussion.

Dr. John R. Poncher, a pediatrician, and Frederick C. McNulty, M.A., both of Valparaiso, comprise one of



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the 70 pediatrician-special educator teams working across the country to deliver a series of CME programs on this important subject.

The basic problem is characterized by its many facets and complexities. The child's entry into school and its entry into adulthood both present the same difficulties that are common to more normal children. In addition, such a child encounters a special set of hardships due to the handicap and to such side effects as the environment and the reactions of comrades.

How disabled young adults view themselves and each other, how their parents regard them, and how community perceptions of disabilities are changing are all topics physicians discuss as part of this program.

The American Academy of Pediatrics is to be congratulated for developing such a program and for mounting such a widespread and effective accomplishment.

ISMA Now Providing Journal To Senior Medical Students

The fourth-year students at Indiana University School of Medicine are being offered the privilege of receiving THE JOURNAL during the school year soon to start.

The ISMA Board of Trustees decided unanimously at a recent meeting to provide THE JOURNAL, compliments of the ISMA. The publication will be mailed to each student who requests it, starting with this issue.

Since three students were added to the Editorial Board of THE JOURNAL last year, it has been found that many medical school students are interested in the State Association and in THE JOURNAL.

Dean Beering has enthusiastically approved the new enterprise with its many opportunities of satisfying the natural interest of senior students in the medical profession and its organizations. Also the scientific content of THE JOURNAL will produce a smooth blending of the students' undergraduate education and their continuing medical education.

Financial assistance for the project will be accomplished by an ISMA medical education grant to the Indiana Medical Foundation which will, in turn, provide a paid subscription for all senior students who desire to receive THE JOURNAL.

Aspartame Approved in Mexico

G. D. Searle & Company has received approval from Mexican health authorities to market a tabletop sweetener containing aspartame. The product, named Canderel, is now marketed in France, Belgium, Luxembourg, Brazil and the Philippines. Aspartame is made of two amino acids like those occurring naturally in foods.

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Caution: Federal law prohibits dispensing without prescription.

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Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol-HC Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Dosage and Administration: Anusol-HC Suppositories—

Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

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NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories—boxes of 12

(N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

Anusol-HC Cream—one-ounce tube (N 0071-3090-13) with plastic applicator.

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EDITORIALS

High Blood Pressure Education: A Program That's Really Working

The National High Blood Pressure Education Program has good news.

The program is working and already there are indications that the complications and mortality of the disease are decreasing.

Good results this early are really remarkable and should encourage all agencies and all individuals to double and redouble the educational effort, which has demonstrated a difference in a relatively short time. The nature of hypertension makes it a condition that warrants and even demands the utmost effort toward its control.

The difficulties are great. Hypertension is a serious disease that affects Americans by the millions; it has no symptoms, and requires lifelong treatment. Each of these characteristics contributes to the dilemma. However, no matter how strenuous the problem, the gains already noted adequately validate the program and mandate its continuance.

The national trend is a dramatic decline in the death rates for cardiovascular disease and stroke.

This a wonderful start—but only a start. High blood pressure still contributes to two of the Nation's top three killing and disabling diseases.

Sixty million people still have high blood pressure. Many people still do not know they have high blood pressure. Many people who know they have high blood pressure do not stay on therapy. Many people have misconceptions about the disease. All the figures add up to Go, Go, Go!

The National Program has, and will provide physicians, many aids in education and treatment. Some of the material is available both in English and Spanish. Pamphlets for consumers, Patient Education Posters, and materials for program planners are available on request. An order form may be obtained by writing or calling National High Blood Pressure Education Program, 120/80 National Institutes of Health, Bethesda, Maryland 20205. Tel: (301) 652-7700.

Routine Chest X-Rays Seldom Useful Before Children's Surgery, Study Claims

The American Academy of Pediatrics reports, in its official journal, a study of routine chest x-rays in children 19 years old and younger. When compared to a similar group of children, it was found that a very small number of conditions were found by x-ray examination sufficient to cancel scheduled surgical operations. The "low yield of significant information" led the authors to recommend discontinuance of routine chest films and the use of chest x-rays only on an individual basis.

House Bill to Kill PSRO

Legislation is now before Congress to abolish PSRO.

Congressman John Rousselot of California views the Professional Standards Review Organization as an exorbitant, federal boondoggle, and says so in discussing his bill which designs its demise.

Rousselot says: "Congress must be made aware of this federal expenditure that costs more in administration than it produces in Medicare or Medicaid savings. In 1980, Congressional Budget Office figures showed that it costs PSROs a dollar to save 40 cents."

Rousselot would make a good doctor. He also says: "PSRO also makes medical care less sensitive to the patients' needs, as well as more costly for all. Instead of recognizing that good medical care cannot be standardized, it sets specific limits and levels of treatment which act to the detriment of a patient's health. Each case is different. And it's senseless to try and measure particular ailments against a national norm."

And more: "Medical care is best supervised by the attending physician, the one most responsive to the patient's needs."

Rousselot's bill is known as H.R. 615. Every physician should write his Congressman on this one.



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MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis



JOHN SHAW BILLINGS, M.D., is featured on the cover of this issue of THE JOURNAL and in an article elsewhere in this issue by Dr. William M. Webb.

Dr. Billings is one of three physicians born in Indiana nominated to the National Medical Hall of Fame in St. Louis. (The others are Drs. Harvey Wiley and Frank B. Wynn.)

Among other distinctions, Dr. Billings is the architect of modern medical education. He was the guiding light in the creation of the Johns Hopkins School of Medicine, the standard to which the Flexner Report later compared all existing medical schools, and the standard to which all U.S. medical schools aspire but few equal.

Billings was born on a farm in Cotton Township, Switzerland County, Indiana, April 12, 1838. When he was five years old the family moved to Rhode Island, then back to Switzerland County five years later. Late in life Dr. Billings recalled his early years in Indiana and his entrance to college in Ohio at the age of 14 years:

"When I was about 10 years old, my father moved to Indiana and es-

tablished himself in a little cross-roads village called Allensville, on the road from Rising Sun to Vevay. Here he kept a country store—was postmaster, and had a small shoemaker's shop in which one man was employed. I learned something of shoemaking—had some experience in keeping store. I read incessantly. Came across a book—I have forgotten its title—which had a number of Latin quotations in it, asked a young clergyman (John C. Bonham) how I could learn Latin—and got a Latin grammar and reader—copy of *Caesar*, and a Latin dictionary, and set to work. It was difficult, but with the aid of Mr. Bonham I made good progress. Then I made an agreement with my father that if he would help me through college in the least expensive way, all of his property should go to my sister and I should expect nothing more. I then got some Greek books, a geometry, etc., and went on to fit myself to pass the entrance examination for the subfreshman class at Miami University, Oxford, Ohio. I succeeded in doing this in a year—and passed the examination in the fall of 1852."

The site of Dr. Billings's birthplace is now identified by a historical marker, shown on this page. It is not clear who took the initiative to establish the marker but it appears to have been Ohio physicians rather than those from Indiana. Dr. Cecil Striker of Cincinnati requested the placement of a marker in 1962. Governor Matthew Welsh responded to this request as follows:

"Dear Dr. Striker:

"This will acknowledge your letter of September 1, regarding a commemorative plaque being placed at the birthplace of Dr. John Shaw Billings.

"This, of course, is a very worthwhile project and we understand that Dr. Billings was a man of significant achievement who merits commemoration. It is also clear that his contribution to the advancement of medicine was entirely at the national level. Under these circumstances, it would seem appropriate for a national organization such as the American Medical Association (perhaps in conjunction with the A.L.A.) to sponsor the marker.

"I regret to inform you that the budget of the Indiana Historical Bureau is insufficient to sponsor this project."

A letter to the Recorder of Switzerland County from the Academy of Medicine of Cincinnati in August of 1964 indicates this group to be making a concerted effort to locate the birth site.

Funds for placing a limited number of markers were made available to Indiana's Sesquicentennial Commission in 1966. The marker was then placed in 1967 by the Indiana Historical Bureau.

(There are no makers yet for the birthplaces of Dr. Wiley or Dr. Wynn—although the latter does have a mountain in Montana named for him.)

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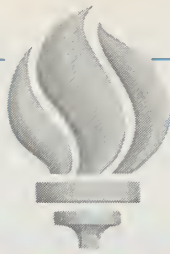
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Dr. Bowen Honored by Emergency Physicians

Former Governor Otis R. Bowen, M.D., was honored May 7 by the Indiana Chapter of the American College of Emergency Physicians at a banquet during their 10th Annual Scientific Meeting at the Sheraton-West Hotel in Indianapolis.

Dr. Bowen is considered the "Father of Indiana Emergency Medicine," having nurtured the development of Emergency Medicine in Indiana as far back as 1973 with the Governor's Conference on Emergency Medical Services. In 1974, as a direct outgrowth of the Conference, legislation was passed creating the Indiana Emergency Medical Services Commission. Today the Commission has more than 14,000 trained emergency medical technicians (EMTs) in the state and 743 ambulances operated by 339 ambulance services

providing emergency care to the people of Indiana.

In June 1980, in cooperation with the Indiana University Foundation and the Indiana Emergency Medical Services Commission, the Indiana Chapter of ACEP created the Otis R. and Elizabeth Bowen Endowed Professorship in Emergency Medicine at the Indiana University School of Medicine (THE JOURNAL, December 1980, p. 779). The Indiana University Foundation continues to receive tax deductible donations to this fund honoring "Doc" and the late Mrs. Bowen.

For information regarding the Bowen Professorship, contact the Indiana University Foundation (Bloomington 47401, 812/337-8311) or the Indiana Chapter of ACEP (914 S. Range Line Road, Carmel 46032, 317/846-2977).



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Reagan's Budget Cuts Are Not What They Seem

Commentary

JOHN W. WALLS

President

Indiana Chamber of Commerce

IT'S ALMOST MORE than a body can stand.

Hardly a night goes by without bringing piteous interviews on the news shows. We're bombarded with quotes from all sorts of unfortunate persons, and with dire warnings from doomsayers wailing that starvation and pestilence are imminent if President Reagan's proposed budget cuts are passed by Congress.

Then we pick up the daily newspapers. Inevitably, in the first five pages we see headlines that proclaim: "Budget Cuts Seen Fatal for Conrail," or "Lowpay Workers To Be Penalized by Budget Cuts." Day after day after day.

If the yelping gets any worse, they'll be painting President Reagan and his director of the Office of Management and Budget, David Stockman, as the sort of people who get their kicks from denying food to babies.

Frankly, I'm fed up. That's why I asked our vice president for public finance, William Styring, to analyze the administration budget figures and find out exactly what the President has proposed. What he discovered is very enlightening.

Comparisons of Spending

In fiscal 1980, ending last Sept. 30, the U.S. government spent \$580 billion. (That's one thousand million dollars multiplied 580 times.) Now let's compare the federal spending levels as proposed by President Carter to those as modified by President Reagan for the current fiscal year and the coming (1982) fiscal year:

1980 (actual)

\$580 billion

1981 (proposed)

Carter: \$663 b.

Reagan: 655 b.

1982 (proposed)

Carter: \$739 b.

Reagan: 695 b.

Really major differences don't show up until 1982, when the Reagan spending level is \$44 billion below the Carter level. Even then, Reagan's 1982 total is \$40 billion *higher* than his 1981 figure. So what is the true picture on those horrendous budget "cuts"?

Obviously, the Reagan program is not a "cut" from anything, at least in the overall sense. It would simply lessen the size of the Carter increase—exactly what Reagan had promised to do and, as I see it, was elected to do.

Of the \$44 billion, \$16 billion is not an actual reduction in the policy sense. It is \$16 billion that Reagan says won't need to be spent because of the lift in the economy that will be generated by cutting income taxes 30 percent over a three-year period. It's a saving of \$16 billion in government handouts.

That leaves a policy reduction of \$28 billion. Of that, the three biggest chunks total \$9.4 billion, as follows:

CETA Needs Retrenchment

Public Service Employment—Down \$3.6 billion, but retrenchment is certainly in order here to permit thorough review of a CETA program beset with scandals and ineffectiveness.

Business Assistance—Outlays down \$3.5 billion owing to withdrawal of Carter's proposals for business tax refunds in excess of tax liability. Business, too, has to give up goodies.

Food Stamps—\$2.3 billion to be cut from a program that includes college students, a group reasonably expected to have higher-than-average lifetime incomes. Can we seriously argue that the program can't stand pruning?

Examples of overreaction abound. One agonized complaint cited a \$1.2 billion cut to eliminate a youth jobs program which Carter had intended to request but which hadn't even been sent to Congress, much less authorized—a program which had never "helped" a single youth!

One thing is clear. The Reagan proposals are much milder than those who tend the gored oxen would have us believe.


Maybe Mr. Stockman has goofed after all. Given the high level of rhetoric generated by the actual proposals, perhaps the "cuts" should have been doubled. He could have sought twice the reduction for the same amount of hysteria.

DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Meet Your ISMA Staff



Susan D. Grant
Administrative Assistant

AS ADMINISTRATIVE assistant for ISMA's two attorneys and for legislative matters, Susan Grant has her work cut out. Can you imagine trying to decipher a lawyer's notes so that they'll magically appear as a legal brief or as a letter to an inquiring physician?

But Susan can handle it. She holds a B.S. degree in office administration from Ball State University, and worked four years as a secretary in former Governor Otis R. Bowen's office before joining the ISMA staff last year. The Governor named her a "Sagamore of the Wabash" in 1977.

Besides her legal work, Susan fields questions from physicians concerning legislation and handles administrative matters—agendas, minutes, etc.—for the Commission on Legislation. She handles the bookkeeping and correspondence for the Indiana Society of Internal Medicine and for the Indiana Medical Political Action Committee (IMPAC). When she's right in the middle of one of these projects, she's sharing responsibilities for answering the constantly ringing ISMA telephone lines.

Susan, who is 24, and her husband Mike enjoy camping, hiking, snow and water skiing, and bicycling. Mike is employed by Kellogg's Sales Company, Indianapolis.



Elsie A. Reid
Receptionist

ELSIE REID can tell you stories about the ISMA and its members that you might find in dusty volumes of *THE JOURNAL* or in microfilm versions of Indiana newspapers from yesteryear. That's because she has been employed by the Association nearly 50 years—she'll hit that half-century mark in November.

Elsie, originally from Rockville, is an ISMA legend. She has done a little of everything during her five decades with the ISMA. She initiated or maintained many of the old files at the headquarters, and remembers most of them. She was in charge of Membership Services for 36 years; until 1977, she also had served as secretary to the Executive Director—in fact, all four Executive Directors since the position was established in 1924. Since 1968, she has worked with the Grievance Committee and the Commission on Convention Arrangements.

When Elsie joined the ISMA, only three other people comprised the entire administrative staff; the headquarters was then located in the Hume-Mansur Building in downtown Indianapolis. Since 1932, she has attended every Annual Convention except last year's, which she missed due to illness—even then, staff members kept her posted.

Today Elsie serves primarily as the headquarters receptionist. Because she's the person who usually answers the telephone, she has become an expert at handling even the most unusual inquiries from the public. After all, not just anyone would know that a curious caller anxious to sell his body should contact the Indiana State Anatomical Board.

Now 72, Elsie says she plans to continue working as long as possible, at an understandably slower pace, and to continue traveling during her vacations to visit friends and relatives.

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EQUAGESIC—Abbreviated Summary

INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective, for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery. Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphet-

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions. Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted. Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**)
Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSEAGE: SYMPTOMS: The manifestations of serious overdoseage with propoxyphene are similar to those of narcotic overdoseage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdoseage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdoseage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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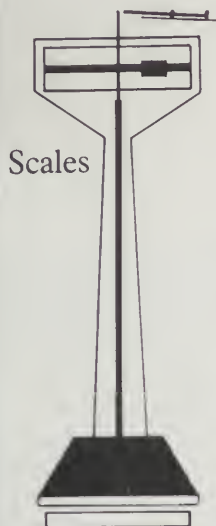


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There's a Doctor in the Library

The Story of John Shaw Billings, M.D. (1838-1913)

He was a Hoosier-born Civil War physician who became renowned as a surgeon, statistician, librarian and sanitarian. He planned Johns Hopkins Hospital, was the first director of the New York Public Library, and perhaps most importantly, founded the *Index Catalogue* and the *Index Medicus*.

WILLIAM M. WEBB, M.D.
Lakewood, Colo.

AT A LITTLE TRAVELED CROSSROAD called Allensville in Switzerland County near Vevay, Indiana, stands a memorial commemorating

Dr. Webb, a native of Indianapolis, presented this paper to the Indianapolis Literary Club, of which he is a member, in November 1980. He is a retired Army colonel who served as a surgeon during World War II; his subsequent military assignments included duty at Fitzsimmons Army Hospital, Denver. He is a 1940 graduate of the Indiana University School of Medicine. After completing his Army career, he practiced medicine in Millbrae, Calif., as a certified gastroenterologist until he retired in 1971. He is an active member of the Civil War Round Table.

the place and date of birth of John Shaw Billings, a boy who became a man of national and international fame. The plaque (*see photo*) omits one important facet of his life, which I will discuss.

My sister and I visited the southeastern Indiana town last year, having to make several inquiries along the way to find it. The plaque is at a crossroad on a school ground. When we arrived it was recess time for the school children, probably eight to 14 years old. They comprised a most interesting audience, both curious and informative. I asked if they knew who this memorial represented. There was a chorus of yesses. My sister asked, "Where is Allensville?" One little girl pounded the ground mightily where we were standing and said, "Right here is Allensville!"

Dr. Billings loved children. He had six of his own—one not living long. On his many trips he always found time to write short notes to them.

Something bothered me on my ride home and still puzzles me—why had that farm boy, not unlike the children we had seen, become the man he did? It is the story of America, I decided.

Searching here in Indiana for more memorials or recognitions of this remarkable man, I came up empty-handed.

The Billings Hospital

In July 1941, a 1,000-bed Army hospital of the pavilion or cantonment-type, early sanctioned by Dr. Billings for better ventilation and sanitation, was opened at Fort Harrison, northeast of Indianapolis. This type of construction came into vogue during the Civil War and was followed through World War II. It probably has had its day, and newer type construction is replacing it. The Billings Hospital was inactivated in June 1947. At one time, it carried a peak load of 2,700 patients. A portion of the building was



used as a station hospital for Fort Harrison from 1954 until 1973.

In May 1973 a new hospital, built across the street, was opened. A group of soldiers, prominent citizens and politicians were appointed to consider whether the name "Billings Hospital" should be kept or retired. I have read the minutes of the meeting. It was thought throughout the country that new buildings were being named more often than not for people of World War II fame. Hence, the Billings name was lost as the old structure was torn down, and the new one became Hawley. General Hawley was a Hoosier farm boy from College Corner, Indiana, and attended medical school at the University of Cincinnati, as did Dr. Billings.

It probably makes little difference that there are so few memorials to Dr. Billings because wherever he went, he left behind living monuments—institutions that still stand on the foundation he laid down.

On the occasion of Dr. Billings' death in 1913, Dr. William Welch, one of the great teaching doctors at The Johns Hopkins University School of Medicine, called him "America's greatest contribution to medicine."

It has been my belief that many people, particularly those whose lives and professions were touched by this man, would not recognize the name. Included are the military medical profession, the general and academic medical profession, librarians, and even members of the Indiana Historical Society. For the past year or so, I have conducted a small investigation—perhaps too small to be valid—but enough to satisfy me. Some of the people in those professions mentioned had never heard of him. Others had, but with vague knowledge.

This man, Hoosier-born, spent his early life in Indiana. He was an Army medical officer for 32 years, a pioneering librarian, a hospital

builder, a sanitarian, and a one-man task force for the overall good of the medical profession.

It seems a little strange that such a man's accomplishments would be so obscured by time. There is not even a marker at Fort Harrison, saying: "Here was located the John Shaw Billings Hospital."

I was made aware of this extraordinary man by two of my professors in medical school who added extra flavor to their lectures by including some medical history. I refer to Dr. Thurman B. Rice and Dr. Edgar F. Kiser, long dead now, but known to some of you. Just how many of my classmates this impressed, I really don't know. It stimulated a lifelong and satisfying interest in me.

His Early Years

Dr. Billings was born April 12, 1838, on a farm near Allensville. The family moved to a farm in Rhode Island when John was 5, but they soon returned to Allensville. His early life was typical of the

quiet, rural life at that time. However, he was always a student. He read all that was available, probably not much in that time and location. He taught himself Latin from a borrowed Latin grammar, and used it frequently in his lectures in later years, as was the custom then more than now. He set a goal of going to college. In those days, a knowledge of Latin was much more important for college entrance. He went to Miami University at Oxford, Ohio, and was graduated second in the Class of 1857. To graduate from college at 19—his age at the time—was not uncommon. The next year he entered the Medical College of Ohio, Cincinnati.

He made his money for tuition by being the commentator on a traveling side show of lantern slides. I wish I knew what the slides were!

The medical school curriculum was but two years, standard at that time. He did not find the courses difficult and admitted to cutting many classes to work as an intern for a fee in local hospitals.

After graduation in 1860, he remained at the medical school as a faculty member. Cadavers in those days were not as available as today. The students had neither their own cadavers nor did they do their own dissecting as is done now. Several students were assigned to a "demonstrator" who did the dissection and explained the anatomy; and this was what he did.

Billings the Soldier-Surgeon

As soon as the Civil War began, Billings volunteered to be an Army surgeon. For three days he was examined by a reviewing board for appointment. He thought he had done well. After a few days, he was called back and again questioned. Ultimately, he was ranked in first place. The call back was to satisfy the examiners because he had answered so unusually well.

Billings quickly established him-



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NATIONAL LIBRARY OF MEDICINE

self by his ability and his bravery. His philosophy was to have his medical unit just behind the line of battle, thereby allowing himself and staff to get to the wounded more quickly. At the battle of Chancellorsville, his field unit was so close to the fighting that the walking wounded refused to stop so near to the fighting. Their idea was to be treated in a safer area more to the rear, so he moved his unit farther to the rear.

He wrote a letter home, saying, "I like fighting tolerably well, although it is not half as exciting as I supposed it would be—marching and bivouacing also are not so very disagreeable when the weather is pleasant and the roads tolerably good—but when it is raining steadily—mud four inches deep everywhere—and nothing to eat for yourself or horse, then I object and begin to feel demoralized." This expresses well the feeling of most soldiers, whichever the war.

In another note home, he wrote, "July 9, 1863, hospital near Gettysburg . . . I am covered with blood and tired out almost completely and

can only say I wish I was with you tonight and could lie down and sleep for 16 hours without stopping. I have been operating all day long and have got the chief part of the butchering done in a satisfactory manner."

The use of the term "butchering" might sound flipant to some, but it indicates that surgeons of the time knew how bad the surgery really was.

Dr. Billings wrote often to his wife. He never wrote of his own dangers, but more often, that things were moving along jolly well. At the close of a letter May 29, 1864, he said, "In two or three days more we shall be on the Chickahominy and taking McClellan's campaign over again. I enclose you some honeysuckle from the banks of the Pamunkey. I believe all will prove for the best for us in the end and that both you and I, in years to come, will be glad and proud that I was in this campaign."

Here's a fact that seems sort of hidden: It has only been from my interest in the Civil War that I learned of the attempt of President Lincoln to colonize 5,000 Negroes on Haiti. It was found that this was graft, a hidden racket, and was halted. About 450 Negroes did get sent to Haiti. Their care and treatment was very poor. In February 1864, Dr. Billings was detailed with a ship and small detachment under sealed orders to Panama. The orders appointed him as head of an expedition to proceed to Ile 'A Vache, Haiti, to return the 350 or so surviving Negroes to the United States. Of course, he handled the assignment very well.

Upon return from this mission, Billings, a restless man, asked to join the Army of the Potomac. His ability as a surgeon was well known. He also was known for his administrative, statistical and working abilities. He was made assistant to the medical director and soon became

the force behind the entire medical department. At times, he performed surgery. His dispersion of medical troops was considered ideal. Many years later, when the history of that Army of the Potomac was written, much was recognized as taken from the notes of Dr. Billings. Although he wrote voluminously, his attempt and advice was to write concisely.

Billings Goes to Washington

In August 1864, he was transferred to the Washington office of the Army of the Potomac where he organized his notes of the war. In December 1864, he went to the Surgeon General's office where he remained until retirement 32 years later in 1895.

His first 10 years in Washington were rather routine. The northern war machine was unwinding. It was a time of getting reacquainted with his family. A new excitement was in having the use of a microscope to tinker with. Actually, he became quite proficient and wrote some acceptable papers on fungi. He explored philosophy, theosophy and Far Eastern lore. It cannot be over-emphasized how widely read he was except to note how much of it shows up in his writing and lecturing. It was a period in which he wisely let his mind and spirit lie fallow and enjoyed his family, friends and life.

In about 1870, his activities became extended in three directions.

He was placed in charge of a collection of books known as the Library of the Surgeon General's Office. This was the beginning of his work in medical biography.

He was detailed to the Secretary of the Treasury to inspect the conditions of the Marine Hospital Service, upon which he made worthwhile reports. This was the beginning of his work in public hygiene, in which he came to be recognized as a national authority. Out



Dr. Billings: "America's greatest contribution to medicine."

of his interest in the Marine Hospital Service, developed the Public Health Service.

His interest in and knowledge of Marine hospitals became the basis of his future work in hospital construction.

Billings the Librarian

In his medical school days he had written a thesis on epilepsy. Fortunately, he recalled his great difficulty in finding the data he needed in any library.

In 1870, as a captain, he was put in charge of what was called the Library of the Surgeon General's Office. This library, eventually called the Army Medical Library, consisted of about 1,800 books, just stacked without any type of index. Hence, to find some specific data, a tedious and time-consuming search was needed.

Billings wrote, "There was not in the United States any fairly good library, one in which a student might hope to find a large part of the literature relating to any medical subject. Perhaps the best way for a physician to continue his education was

by reading scientific reports and of research as reported by other doctors."

The physician's problem was to know what was available in the literature and how to find it.

Here was the challenge that Billings accepted: to collect medical texts and journals, and to prepare an index that would enable doctors to find quickly the information they wanted. This had never been done in this country. As usual, money for a new project is always a problem. Billings was the type of person who not only knew his own work, but had an awareness of what was going on about him. He knew that at the end of the Civil War many of the military hospitals had extra money—\$80,000—which had been turned back to the Surgeon General. He requested the money for his project and it was allocated to him.

In three years Billings published the library's first catalog, listing 25,000 books and 15,000 pamphlets (as journals were often called).

In 1887 he said, "Every important medical journal now in course of publication in the world is taken by the library."

In 1876 Dr. Robert Fletcher became Billings' able assistant and ultimately took over from him. Dr. Fletcher was an Englishman who came to this country after his graduation from Bristol Medical School. He had served as a surgeon volunteer in the Civil War. He was a scholar and was much like Billings in character. But whereas Billings was a man of action, Fletcher was more of a dreamer. Nevertheless, they worked beautifully as a team. They were assisted by a few other Civil War veterans.

A visitor to the library in its early days said he was surprised to see men 40 years old—some were amputees—thumbing through books and pamphlets and making out



PHOTO COURTESY OF NATIONAL LIBRARY OF MEDICINE

index cards. The visitor asked one what he was doing. He received the curt reply, "Doing what Dr. Billings has told me to do."

Every book and journal was indexed by author, title and subject. In due time, a complete index of all the material was accomplished. With the outpouring of an always increasing number of books and journals, it was decided to publish a monthly index of material received in the previous month. Later, be-

cause of money problems and the volume of new material, the index was published quarterly. There were constant battles for funds to carry on the work. The American Medical Association tried competing with an index of its own. It, too, had financial problems and certainly there was a duplication of effort.

In 1956, Congress created a National Library of Medicine. Control by the Army, and the AMA effort,

was shifted to the Public Health Service. Modern mechanical indexing and use of computers had come to make the work much easier. This library, founded and nurtured by Dr. Billings, is now one of the largest and most complete medical libraries in the world.

Billings retired from the library in 1895, leaving it to Dr. Fletcher for other challenges. This library can certainly be thought of as a living memorial to Dr. Billings. Medical schools followed his example of having adequate books and journals and cataloging them in order to stay abreast of new developments in the field of medicine.

It must be said that I have taken real license in making it seem simple how the cataloging of all medical writing and the monthly index came into existence—the ebb of fear of its success was most often related to finance and to competition. It was Dr. Billings' brain child. It was a first. Now, all sciences have indexes. Dr. Billings' idea of cataloging 2,000 volumes in the library in 1864 had grown to 13,000 by 1871, and 25,000 books and 15,000 pamphlets by 1874. The first *Index Catalogue* appeared in 1880 and the work still goes on. It took 15 years for the catalog to go from A to Z. When published, much was already dated. Just a year earlier, in 1879, Billings and Fletcher had started publishing a briefer but up-to-date monthly *Index Medicus*.

Later, this ran into financial problems, so it was published by the American Medical Association for a time. Still later, it returned to the Surgeon General's Office where the Army and AMA efforts were merged into the *Quarterly Cumulative Index Medicus*. All things seem to change fast—today we have the *Abridged Index Medicus* as a monthly publication, summed up at the end of the year as the *Cumulated Abridged Index Medicus*. It is now published by a branch of the Public Health Service.

The July 1980 issue of *Annals of Internal Medicine* featured an article on a prototype of an information transfer system that referred to Billings, whose wisdom is still quoted. It said that in 1881 John Shaw Billings asked, "What will the libraries and catalogs and bibliographies of a thousand or even a hundred years hence be like, if we are thus to go into the ratio of geometric progression which has governed the press for the last few decades?"

"It leads to . . . an absurd and impossible conclusion, for it shows that if we go on as we have been going, there is coming a time when our libraries will become large cities and when it will require the services of everyone in the world not engaged in writing to catalog and care for the annual product."

The article goes on: "Billings did not foresee our improved technologies to handle the volume, but the flavor of overload was right."

The work on the library brought him fame and honors. By nature he was a gregarious person, perhaps even a bonvivant. In 1881 he was the first American to address the International Medical Congress in London. On this visit and all subsequent visits, he always was on the lookout for material for the library. He sought and was sought by the famous in medicine on this and on many later trips. These friendships lasted a life time. He also made many friends in the literary world.

Dr. Billings was a great writer of brief notes to longer letters to his friends and especially his wife. Many of these letters are in the book, *John Shaw Billings, A Memoir*, by Fielding H. Garrison, a fellow Army medical officer and author of *History of Medicine*, published by Saunders. These letters show his wide interests, his unusual knowledge, and his ability to follow his own advice to write as concisely as one does in a telegram.

This was a period of his life during which various honors began to come his way, and he was in great demand as a speaker.

Speaking and writing so much, he was bound to step on toes and he did, but he was never malicious and was quick to compromise or forget.

Billings the Builder

While in the Army in 1876, the trustees of the Johns Hopkins Fund visited him to discuss using the \$3 million fund and 13 acres of land left by Johns Hopkins to build a hospital. It was further stipulated that the hospital was to be for the indigent without regard to sex, age or color as well as for those who could pay. It was the desire of the trustees that the construction compare favorably with any other institution in this country or in Europe. The same standard was to be applied to the staff. Four other doctors were consulted about the plans.

Dr. Billings' plans were accepted. He had had experience in the plan of building Army hospitals; he had a reputation in ventilation, hygiene and sanitation and had traveled widely viewing European hospitals. His reports to the trustees became valuable and enduring contributions to the subject of hospital construction and organization.

He wrote a short article that treatment of patients in this hospital was to be in the same spirit in which they would be treated in their own home. This article, "Of the Dignity of the Patient," should be required reading every year by student house officers and attending doctors. I had never seen this gem until the preparation of this paper, but through the Johns Hopkins influence at my school, Indiana University, it was known and followed (and preached by beloved mentor Dr. James O. Ritchey).

This hospital, constructed per his ideas, was a model for the times and gave impetus to all future hospital

construction. Although I have not seen it in writing, I remember that in my own medical school days Dr. Rice had said that Dr. Billings protested the walls forming right angles at the floor because these angles were dust catchers. They could not be swept or mopped properly. He wanted these areas to be curved. This struck me as being such an unusual and detailed request that I have taken note of this little item of hospital construction from my student days until the present day. Most of the new construction is not the "Billings Plan." I suppose cost is a factor—then with modern vacuuming equipment it is not as important.

In 1889, when the hospital was completed, Billings was asked to select the staff. With his usual genius, he selected Dr. William Welch, Dr. William Osler, Dr. William Halstead and Dr. Howard Kelly. These were regarded as the big four in each of their own specialties and in medical teaching. For one man to know personally these four men and to secure them for this new hospital was considered an amazing accomplishment.

In 1877 and '78, Dr. Billings presented a series of 20 lectures to the trustees and staff on the history of medicine, medical legislation, and medical education in relation to future university teaching in the hospital.

Dr. Billings suggested publishing "The Johns Hopkins Bulletin," which still goes on. He lectured at the school for several years on the history of medicine, and always maintained a close interest in the affairs of the school and of its faculty.

Dr. Billings succeeded in making The Johns Hopkins University School of Medicine the great school it is. The education of so many doctors who became world famous, and the great research done at this hospital are a credit to his memory.

I often wonder how many of the graduates of Hopkins know much about this Hoosier farm boy whose hands rocked the cradle of their school.

Dr. Billings must have been a restless soul, for he was always wondering, "What's next?"

Billings the Statistician

While working on the Hopkins project, he was studying medical statistics. He came to know so much about statistics in general that he was appointed a consultant to the 1880 census taking. He and Herman Hollerith, statistician with the Bureau of Census, made a crude tabulating machine and used it in the 1890 census. With the help of the tabulating machine, this census took two and one-half years to complete; the 1880 census had taken seven years. This idea naturally led to the next step—computers.

Dr. Billings was awarded many honorary degrees and belonged to various medical societies, some of which he served as president, or as a member of the board of directors. He attended numerous meetings, as recipient of some honor, as an officer, or as a lecturer. My favorite lecture was a commencement address to his old school on, "Am I My Brother's Keeper?" He answered in the affirmative.

Apparently having spare time on his hands, he prepared a medical dictionary in 1890. It may not have met with his usual success for I find very little in the literature about it.

In 1895, he published his "History and Literature of Surgery," considered by Fielding Garrison as a great book.

By the time of his military retirement, he was perhaps the most famous, most honored, and among the most known physicians in America. Hence, it was logical that some university should seek him

out so that his light might fall also upon them. He became professor and chairman of the Department of Hygiene at the University of Pennsylvania. At this time, bacteriology and immunology were in their infancy under the Department of Hygiene. He was not happy—in fact, he felt he was an imposter as far as the newer knowledge was concerned. He remained in this position only a year.

Billings the Library Director

By means that are not clear, a symbiosis took place between him and the New York City Library, which actually was a series of small libraries scattered about the city. Funds to create a new library came from the Astor family and, after litigation, from the Lenox and Tilden families.

The site, still the same, was selected at Fifth Avenue and Forty-Second Street. Dr. Billings, lover of books, became the first director of this new and spacious library. He planned the building and supervised its construction. At the same time that he was at work on the building, he began cataloging the 350,000 books in the city's small libraries. The system he set up is still in use today. By the time the library opened in 1905, it had a million volumes on the shelves, and all were cataloged.

His primary interest was the New York Public Library, but he kept himself totally involved. He was president of the American Library Association, a planning advisor to the Peter Bent Brigham Hospital in Boston, and chairman of the board of trustees of the Carnegie Foundation.

His Health Fades

This was a burden for a healthy man to carry, but Dr. Billings was not a healthy man.

Between 1890 and 1892, he had five operations for cancer of the lip.

At the fifth operation, which carried considerable risk, he called his son to his bedside. He told him that if he survived it was his desire to continue to work until he became a nuisance. At that time, he would prefer to go to some quiet place and wait for the end.

The surgery was successful so Dr. Billings continued at the library for several years. He had considerable pain, but did not complain unduly. He died of pneumonia March 13, 1913, at the age of 75.

Epilogue

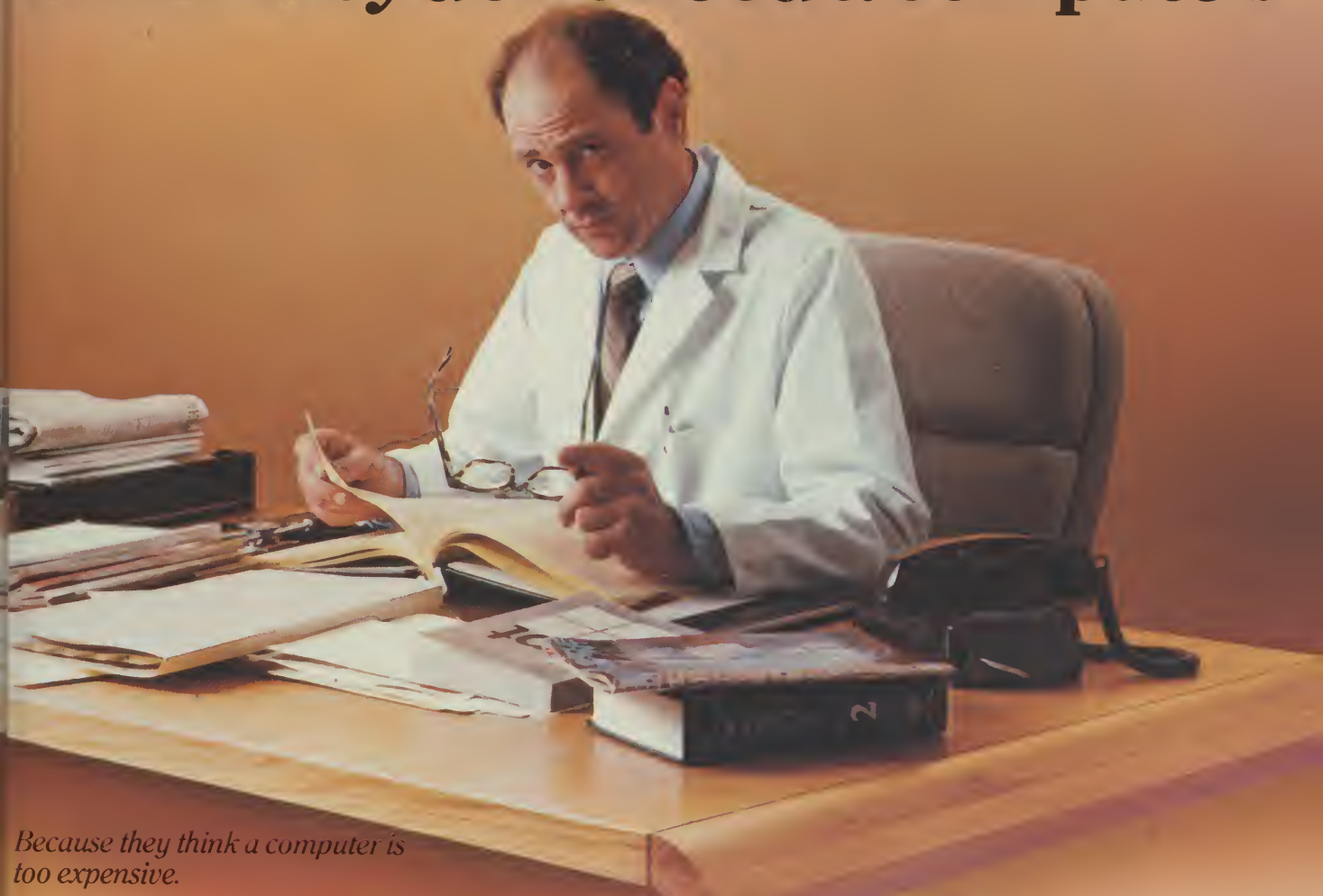
This man served his country as an Army surgeon in the Civil War; he revolutionized hospital construction; he was a prime mover in public hygiene and sanitation; he played a leading role in the development of vital statistics; he challenged the medical profession to higher standards; and he perhaps did more than anyone else to advance medical education in establishing the National Library of Medicine and putting together the magnificent public library of New York City. His work for The Johns Hopkins University School of Medicine speaks for itself.

What made this man tick? Perhaps it was in what he once said to a fellow physician, "I'll let you in on a secret. There is nothing really difficult if you only begin. Some people contemplate a task until it looms so big, it seems impossible, but I just begin and it gets done somehow."

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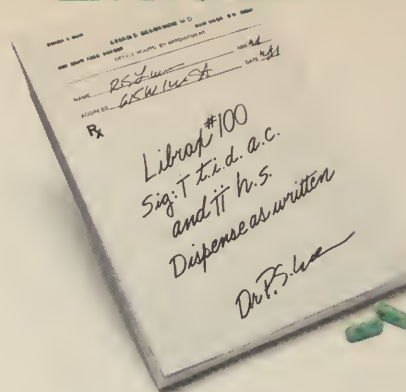
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Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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Photograph of simulated gastric hypersecretion

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.



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Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

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The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

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Tenuate Dospan®^{IV}
(diethylpropion hydrochloride NF)
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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdose. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of January, 1980

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL DOW PHARMACEUTICALS INC.
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Cincinnati, Ohio 45215
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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York. Raven Press, 1978, pp. 391-404.

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Clinical Echocardiography: Ten Most Useful Patterns

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From the Krannert Institute of Cardiology; the Dept. of Medicine, Indiana University School of Medicine; and the Veterans Administration Medical Center, Indianapolis, Ind.

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Reprints: Betty C. Corya, M.D., Indiana University School of Medicine, 1100 W. Michigan St., Indianapolis, Ind. 46223.

ECHOCARDIOGRAPHY, which uses pulsed reflected ultrasound to examine the heart, is a clinically useful aid for differentiating cardiac from non-cardiac symptoms, and for assessing a patient's overall cardiac status.

The examination is without known risk, is painless, and may be repeated as often as is necessary, even for critically ill patients. No physical prep, patient sedation or withholding of medication or meals is required. Most echocardiographs are portable and can be taken to the bedside although the examination usually is performed in a cardiac laboratory. A complete echocardiographic examination averages 20-30 minutes, depending on the patient's body habitus and ease in obtaining quality recordings.

There are two basic types of clinical

echocardiography, M-mode and two-dimensional (2D). M-mode is a single dimension, time-motion, display. 2D is a space and time (2D) video display, which provides tomographic views in realtime. 2D echocardiography has rapidly gained clinical relevance because 1) it is not as limited as M-mode in reliably assessing left ventricular configuration, 2) it is more useful in evaluating congenital heart defects because of spatial orientation, and 3) it provides quantitative information for mitral stenosis patients.

Resolution is still more limited with current 2D than with M-mode equipment; therefore, M-mode is still the exam of choice when precise measurements of motion or hemodynamics are needed. Both exams are performed with advantage in many patients.

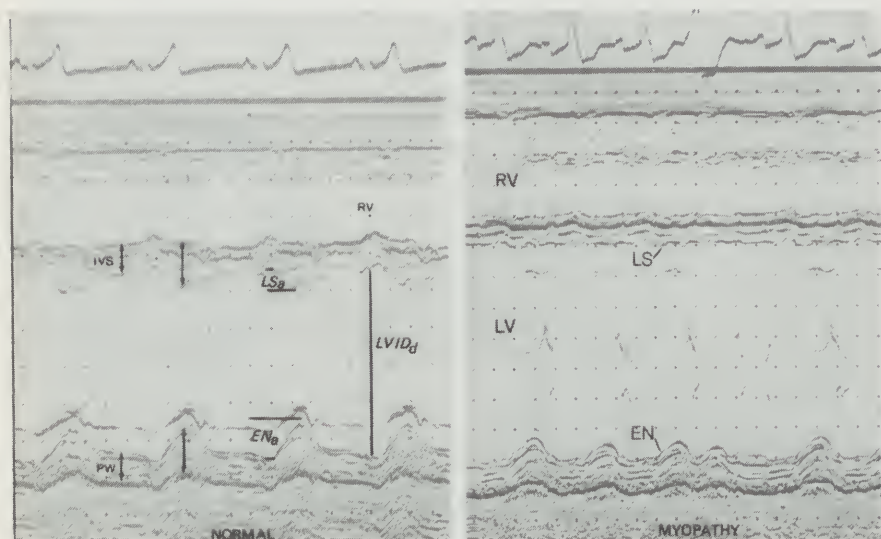


FIGURE 1. M-mode left ventricular echograms recorded from a normal subject (left panel) and from a patient with congestive cardiomyopathy. Precise measurements available include thicknesses (arrows) of the interventricular septum (IVS) and posterior wall (PW) throughout the cardiac cycle; amplitudes of left septal (LSa) and posterior endocardial (ENa) motion during systole; and internal dimensions of the left (LVID) and right (RV) ventricles. Findings classic for congestive myopathy include generalized diminished systolic wall motion and thickening and a LV internal dimension greater than $3.2 \text{ cm}^2/\text{M}^2$. RV dilatation also is present in this case.

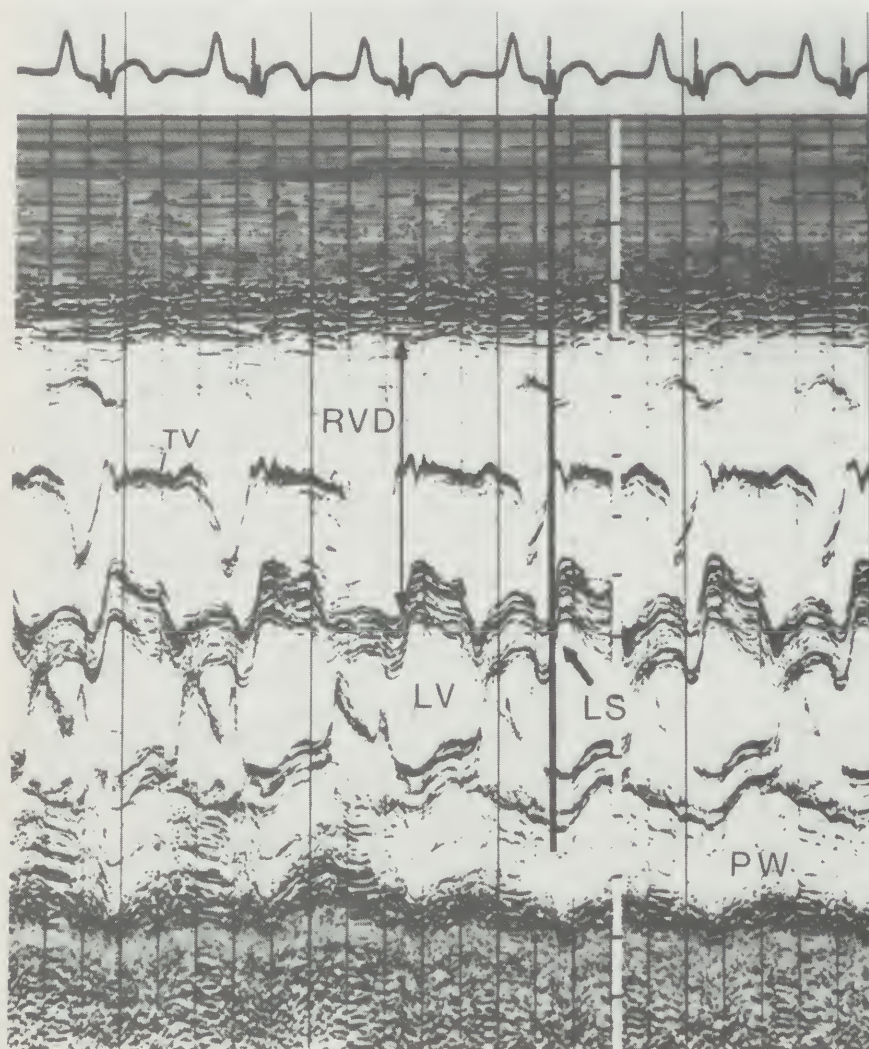


FIGURE 2. M-mode left ventricular echogram showing a grossly dilated right ventricular dimension (RVD) and abrupt anterior septal (LS) motion, classic of RV volume overload. Note the septum thickens normally with systole although motion is abnormal. The left ventricle (LV) may appear deceptively small in the presence of a very dilated RV.

Abbrev: TV = tricuspid valve PW = posterior LV wall

Information available from either type echocardiographic exam includes 1) size of the left ventricle, left atrium and right ventricle; 2) motion and relative thickness of the cardiac valves; 3) contraction pattern of the left ventricle; and 4) presence or absence of pericardial effusion. Presence or absence of an LV aneurysm and measurement of valve orifice areas can be reliably determined only by 2D echo. M-mode is needed for quantitation of aortic valve or mitral valve stroke volume, and for precise measurements of wall kinetics such as motion and thickening.

Cardiomegaly, as seen by chest roentgenography, may be due to pericardial effusion, left ventricular dilatation, left ventricular hypertrophy or right ventricular dilatation. Echocardiography provides definitive information in the majority of these patients. *Figure 1* shows precise measurements available on M-mode and compares left ventricular echograms of a normal subject with that of a patient with a congestive type cardiomyopathy.

Gross right ventricular dilatation is illustrated in *Figure 2*. The abrupt rapid paradoxical (toward the chest wall) septal motion during the isovolumic period associated with the RV dilatation is characteristic of a right ventricular volume overload.

FIGURE 4. M-mode echograms showing segmental left ventricular (LV) abnormalities associated with acute anteroseptal (panel A) and acute inferior (panel B) wall infarction. In panel A, left septal (LS) echo motion moves toward the chest wall (paradoxical) and the septum becomes thinner with systole while posterior wall endocardial (EN) motion and thickening are normal. Just the opposite is seen in panel B where infarction involved the posterior LV wall.

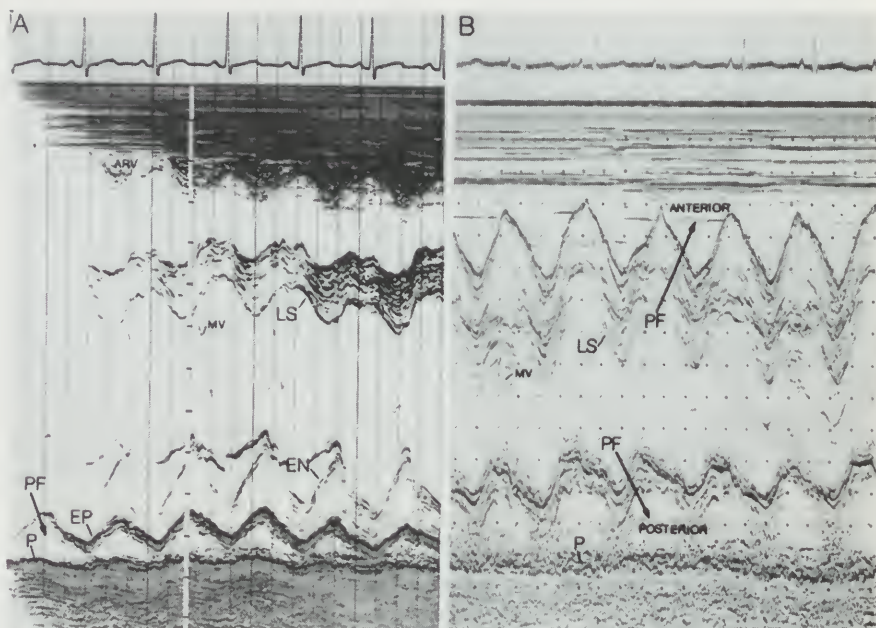
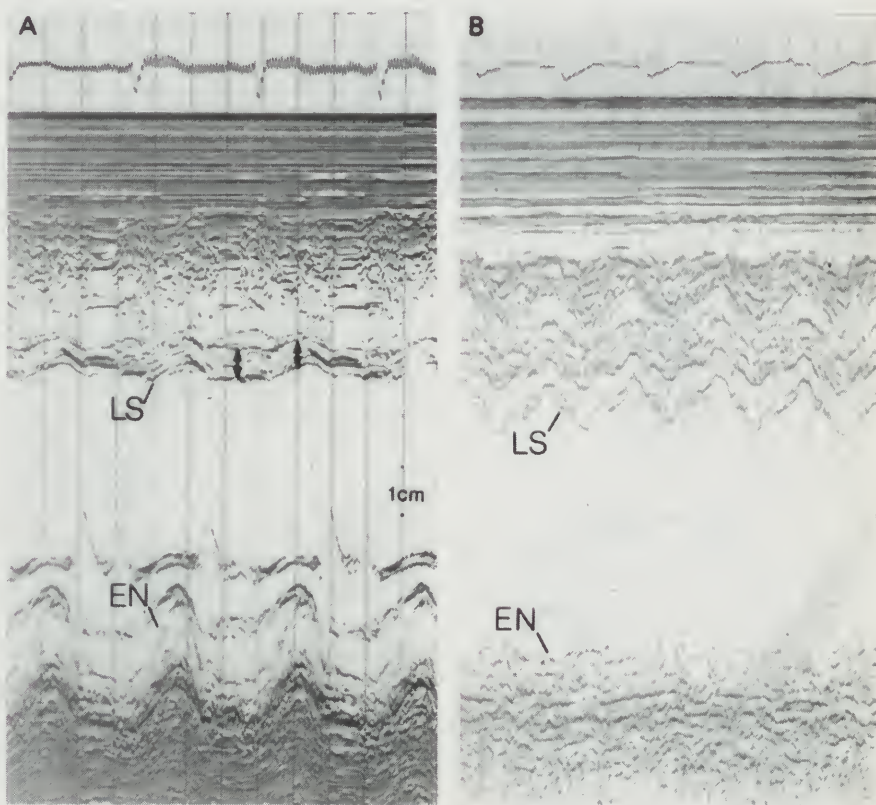


FIGURE 3. M-mode echograms recorded from patients with pericardial effusion. A small pericardial effusion is present in panel A. A large pericardial effusion is shown in panel B. Note the heart is moving excessively (swinging) with the cardiac cycle.

Abbrev: ARV = anterior right ventricular wall EP = epicardial echo PF = pericardial fluid P = pericardium



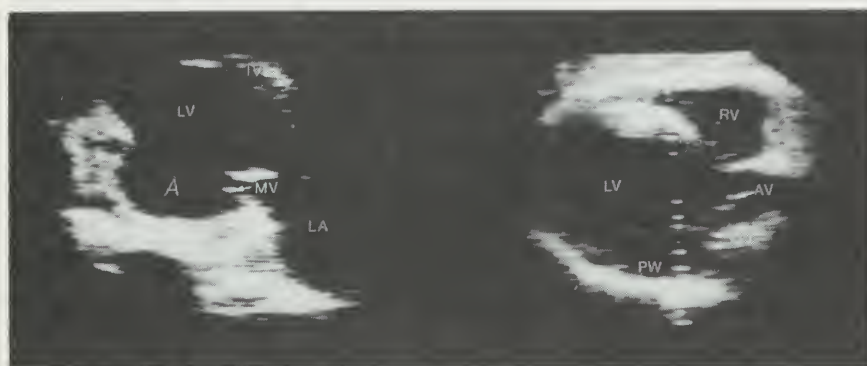


FIGURE 5. Diastolic, long axis, 2D echograms recorded from a patient with an inferobasal left ventricular aneurysm (A). Aneurysmal contour was evident with slight medial transducer angulation (left panel). The aneurysm was not evident in all views as shown in the right panel.

Abbrev: LV = left ventricle IVS = inter-ventricular septum MV = mitral valve leaflets LA = left atrium RV = right ventricle PW = posterior LV wall

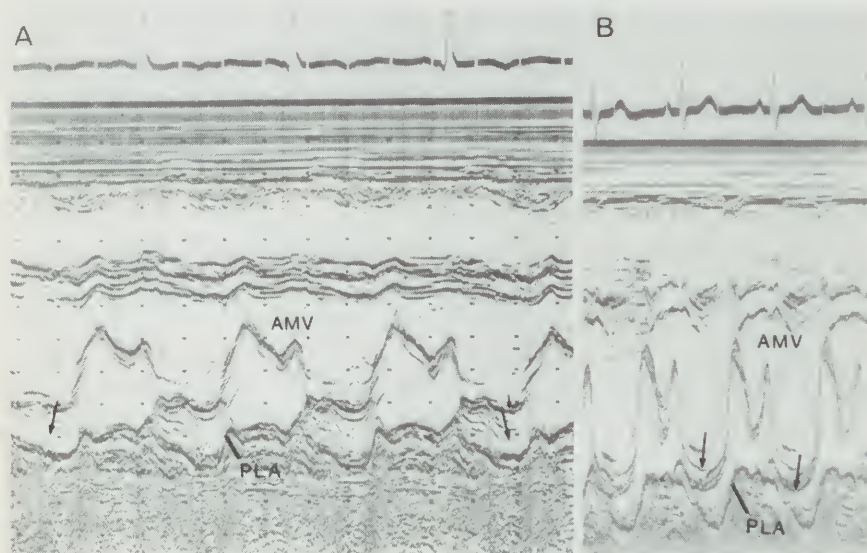


FIGURE 6. Abnormal mitral valve echograms. Arrows show posterior displacement (prolapse) of the leaflets at mid-systole (panel A) and throughout systole, (holosystolic), (panel B).

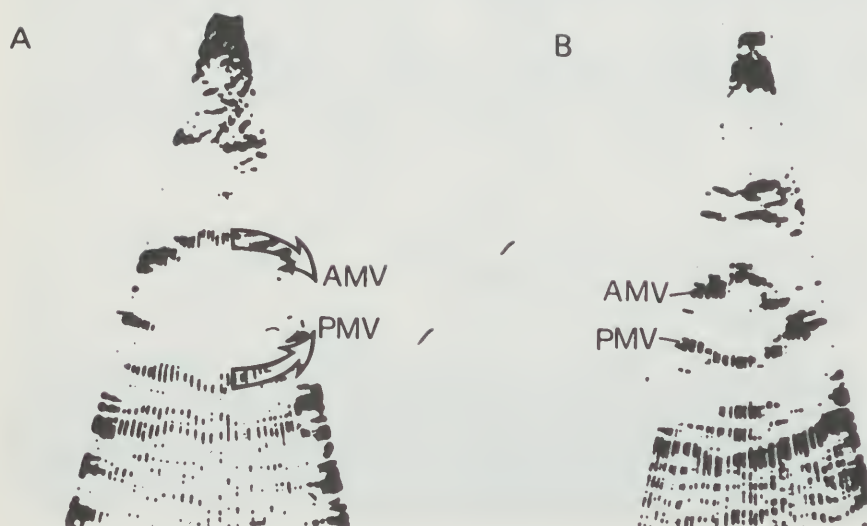


FIGURE 7. Two-dimensional mitral valve echograms recorded in short axis for measurement of orifice area in a normal subject (panel A) and a patient with mitral stenosis (panel B)

Abbrev: AMV = anterior mitral valve leaflet PMV = posterior mitral valve leaflet

FIGURE 8. Two-dimensional, long axis images of mitral valve echograms recorded during early diastole from a patient with bacterial endocarditis. During the clinically acute stage (panel A) a mass of extra echoes was attached to the anterior mitral valve leaflet (AMV). Following successful antibiotic therapy, serial follow-up studies (panel B) show the mass was no longer visible and the mitral echogram was normal.

Abbrev: PMV = posterior mitral valve leaflet



Pericardial effusions are illustrated in *Figure 3*. Normally, there is only a potential space between the epicardium and parietal pericardium. The distance between the epicardium and parietal pericardium increases as the amount of pericardial fluid increases. Following acute myocardial infarction, the presence of pericardial fluid usually is associated with Dressler's syndrome.

The echocardiographic presence of concentric LV hypertrophy usually is based on diastolic interventricular septal and posterior wall thicknesses in excess of 1.1 cm. A small LV cavity and altered configuration of the mitral valve (reflecting elevated LV diastolic pressures and/or decreased LV compliance) are common echocardiographic findings associated with LVH.

The sensitivity of the echocardiogram in detecting wall motion and thickening abnormalities is of diagnostic aid in coronary artery disease, especially in acute myocardial infarction. These abnormalities occur very early with acute myocardial infarction and precede diagnostic electrocardiographic changes in approximately 10% of cases. *Figure 4* illustrates segmental wall abnormalities associated with acute anteroseptal and acute inferior infarctions.

Although absence of or diminished motion often is seen in patients with chronic CAD, approximately 30-40% of patients with significant CAD have normal LV echograms, and therefore, the technique cannot be used to rule out CAD. In some patients who have a normal echocardiogram at rest, abnormal motion occurs transiently during spontaneous angina or during stress. Aneurysmal distortion in diastolic contour of the LV is readily appreciated on 2D and is illustrated in *Figure 5*.

Echocardiography plays a major role in detecting and quantitating valvular disorders, especially those involving the mitral and aortic valves. M-mode echograms demonstrating mid-systolic and holosystolic mitral valve prolapse are shown in *Figure 6*; 2D short axis views comparing a normal mitral valve orifice to mitral stenosis are shown in *Figure 7*. *Figure 8* is a serial 2D study from a patient with a MV vegetation, which disappeared following successful therapy. Congenital aortic stenosis can be ruled out only by two dimensional echocardiography because the M-mode beam frequently is reflected from the mobile dome rather than through the narrowed orifice at the tips of the leaflets, so leaflet separation may appear normal on M-

mode. 2D also is superior to M-mode in evaluating severity of aortic stenosis in adults, although M-mode can be used to reliably rule out aortic stenosis in adults.

In addition to providing diagnostic information, echocardiography is very useful in providing hemodynamic information in patient management. Serial studies are particularly useful and exemplify one of the major advantages of echocardiography compared to other techniques that cannot be repeated as often.

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Ever Need an Ambulance?

Emergency Medicine

JOHN C. JOHNSON, M.D.
Evansville

THANKS TO THE television industry and shows like *Emergency* and *240 Robert*, the lay public has had a good exposure to the world of ambulances and emergency care outside of the hospital. There is an understanding in the public mind as to the difference between an EMT (emergency medical technician) and a Paramedic (EMT-P), and there is an understanding of the different levels of prehospital emergency care offered by these two differently trained individuals.

The medical community is not so fortunate. Physicians, nurses and nursing home personnel apparently do not have the luxury of time to watch such television shows and are thus faced with confusion when it becomes necessary for them to ob-

tain emergency prehospital medical care. This confusion has cost the lives of more than a few of Indiana's citizens.

The practice of emergency medicine outside the hospital is entirely different from any form of medicine practiced within the confines of an office, a nursing home or even a hospital. You do not remove the patient from the vehicle or the rubble of the accident; you extricate the patient by removing the accident scene from about the patient. You do not simply place the patient on a stretcher and run; you must package the patient for safe transport over roads that may have fallen into disrepair. And you may need to take measures to save the patient's life or prevent further injury before you set off for the nearest hospital or the patient may be so injured as to be incapable of complete repair when the ambulance reaches its final destination.

In 1974, Indiana law provided for the certification of both ambulance vehicles and personnel to insure uniformity and competency. Throughout the state there are presently four levels of ambulance service available. In your particular area, there are probably two or three of the four levels available. Three of these four levels are certified by the state. The vehicles and personnel responding from these certified services have a standard-

ized level of on-board equipment and have received a standardized level of training.

Basic Life Support Service

Most areas of the state are served by a state-certified Basic Life Support (BLS) ambulance service. The ambulances contain basic splinting and bandaging equipment as well as personnel to use that equipment and even initiate life-saving procedures such as cardiopulmonary resuscitation (CPR). These vehicles do *not* carry pharmaceuticals and the personnel are *not* trained in the establishment of intravenous lines or their maintenance, let alone the administration of drugs.

Advanced Life Support

Additional areas of the state are served by a state-certified Advanced Life Support (ALS) ambulance service. The ambulances contain, in addition to the equipment on BLS ambulances, equipment and medications (IV fluids, adrenalin, Xylocaine, dopamine, sodium bicarbonate, calcium chloride, Isuprel, 50% dextrose) to not only stabilize an ill or injured patient, but to begin treating that patient's problem under the orders of a physician from the local hospital who will be talking to ambulance personnel by radio. These personnel will be trained either in some of the advanced medical skills (EMT-Ad-

The author is chairman of the Emergency Medical Services Commission, State of Indiana.

vanced) or in all of the medical skills practiced by Paramedics (cardioversion, defibrillation, intravenous therapy, endotracheal intubation, administration of drugs). By 1983 most ALS personnel will be upgraded to the Paramedic level, with the remaining EMT-Advanced personnel performing only IV therapy.

Convalescent Service

Most areas of the state also offer Convalescent Service, which is *not* an ambulance as defined by Indiana law and is therefore not required to be certified by the state. However, Medicare and Medicaid will reimburse only convalescent service performed by a state-certified ambulance service. So there are a number of part-time ambulance services certified at the BLS level by the state that do not provide emergency service and provide only convalescent patient transfer during restricted hours of the day. Other services provide limited emergency service and still others provide full emergency service with convalescent transfers as a side line, but *all* services that provide emergency ambulance service will be state-certified.

Check Their Hours

You may wish to check with your local ambulance service(s) to ascertain their hours of business. Only ALS services are required to provide 24-hour service. While many BLS services also provide such 24-hour service, they are not required to do so. Most purely convalescent services do not provide service other than during daytime hours. It is better to check the service before you need it rather than wait until an emergency arises and end up letting your fingers walk farther and longer than necessary.

When Do You Use Which Service?

Convalescent service is a taxi

service. A person who cannot be transported easily in a car or who requires a wheelchair or a stretcher and *who is not an emergency patient* will benefit from a convalescent service. A person going to the doctor's office or rehabilitation service for a previously scheduled appointment can safely be transported in a convalescent vehicle. A convalescent service that transports an emergency patient, however, is violating Indiana law.

A patient who has a medical *emergency* will require at least a Basic Life Support ambulance service with a certified vehicle and personnel trained and certified to handle the emergency patient without creating further injury. If your area of the state has an Advanced Life Support ambulance service, you may wish to call or request this service if the patient:

- a) is in coma
- b) is having a heart attack
- c) is having difficulty breathing or has stopped breathing
- d) is in cardiac arrest (no heart beat or pulse)
- e) is in shock
- f) has been severely burned
- g) has been poisoned or has taken an overdose of medication
- h) has had a stroke
- i) is having a complication of diabetes
- j) has had major trauma to the head, chest or abdomen (gun shot, stabbing, car accident, severe fall)

The ALS personnel under a doctor's orders may be able to stabilize these conditions right at the scene when precious minutes count the most and prevent or minimize the chance of the patient dying or being further injured.

Type of Ambulance to Call

If you only need a cab with the convenience of an "ambulance" (wheelchair or stretcher) and the patient is *not* an emergency, call a convalescent service.

If the patient is ill or injured and it *is an emergency*, call a certified *Basic or Advanced Life Support* ambulance service.

When do I call a basic versus an advanced service? If your area of the state has ALS service, you can call and ask for such service specifically for the above listed indications or when you feel their drugs, medications and skills may make the difference when there are only minutes to spare to prevent a patient's demise or to prevent further morbidity. Many ambulance services will send their ALS unit if it is available when you call and the patient's condition sounds bad, but they will not use the advanced service or charge the patient for this advanced service if it is not needed. And remember, *no advanced life support skills* are performed without the order of a physician from the local hospital.

If you are fortunate and live in an area of Indiana that has a single emergency number to call for help (eg, 911), the person on the other end of the phone will ask enough questions to help you select the level of ambulance care needed. If you do not live in a single emergency number area, you may have to let your fingers do the walking through the phone book and even then you may not know which ambulance service to call. The wrong decision may cost the life of a patient, a loved one or even your own.

It is hoped that this brief explanation will help you decide which ambulance to call and will also help you to understand the type(s) of service and personnel available in your own community. If you still have questions, contact your local emergency medical services (EMS) organization or contact the Indiana Emergency Medical Services Commission, Room 315, State Office Building, Indianapolis, Indiana 46204.

Expanded Myocardial Revascularization of the Septal Artery

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Indianapolis

WHEN CORONARY bypass operations began to be performed with regularity in the late 1960s, single artery bypass was the rule. In the early 1970s, two and sometimes three coronaries would be bypassed. Since that time, the importance of total revascularization has been recognized and four or more bypasses have become more common than single or double bypass surgery.

In that spirit, the septal branch of the left anterior descending coronary artery has attracted the attention of surgeons attempting complete revascularization. Although previously thought to be too small and inaccessible, the septal artery in some patients is large enough to merit a separate bypass.

Case Report

The patient, a 62-year-old man, had a myocardial infarction in 1963. Since that time he has had angina, although it has been stable and controlled. During the year prior to admission, the frequency of his angina increased and occurred occasionally at rest. The patient is an insulin-dependent diabetic with chronic hypertension.

Left heart catheterization was

performed and showed fair left ventricular function with mild mitral insufficiency. The right coronary artery was completely obstructed. There were high grade lesions in the anterior descending and two of its rather large branches, the septal and a diagonal artery (*Fig. 1*).

On May 8, 1980, vein bypass grafts were placed to the right, anterior descending, and diagonal arteries. The left internal mammary artery also was anastomosed end-to-side to the septal artery. The patient's postoperative course was unremarkable. Because this was our first experience with septal artery revascularization, a postoperative study was done. (*Fig. 2*)

The vein grafts and mammary artery graft were all patent and functioning. The patient has remained asymptomatic since his operation approximately a year ago.

Discussion

Blood is supplied to the septum

of the heart by septal branches of the posterior descending (one-third of the septum) and the anterior descending septal branches which supply the anterior two-thirds of the septum. Usually, the anterior descending artery gives origin to many small septal branches but, in 30% of patients, there is a single large septal artery arising from the proximal anterior descending artery which supplies a significant portion of the septum. This artery also assumes added importance because it nourishes the ventricular conduction tissue.

In some instances, revascularization of a septal artery can be accomplished by a graft to the anterior descending artery giving rise to the septal—if there is obstruction of the anterior descending proximally and distally and there is no obstruction at the origin of the septal artery. Obstructive disease at the origin of the septal artery, however, requires dissecting out the septal artery. In some instances, this in-



FIGURE 1: Injection of the left coronary artery identified a large dominant septal artery (arrow) with a significant lesion at its origin.

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FIGURE 2: Postoperatively, injection of the internal mammary (2 arrows) opacifies the large septal artery (1 arrow).

volves entering the septum for exposure. The mammary artery lends itself well as the graft of choice, as only a small length of septal artery needs to be exposed to accomplish the anastomosis.

Summary

In attempting to accomplish complete revascularization in patients operated on for arteriosclerotic heart disease, bypass grafts to the septal artery in selected patients will enable us to achieve our goal.

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PUBLIC HEALTH NOTES

Indiana is widely recognized for having one of the best dental fluoridation programs in the United States. This reputation was gained through hard work on the part of State Board of Health staff along with invaluable support from the Indiana University School of Dentistry and the Indiana Dental Association. This article describes a portion of that program, based on information prepared by Victor H. Mercer, D.D.S., M.S.D., of the Division of Dental Health.

The medical and dental literature substantiate the daily administration of fluoride supplements for children living where there is a) suboptimum fluoride in the community water, or b) private water that is low in natural fluoride. For a child to receive benefit to the permanent dentition, fluoride supplements should be given daily from six months until about 13 years of age (at which time calcification and eruption of all permanent teeth except third molars has occurred).

It is essential that private drinking water (i.e., other than from a community source) be analyzed for fluoride before issuing a prescription. A recent survey of rural Indiana water by the Dental Division of the Indiana State Board of Health reveals great variability in the natural fluoride level of private water supplies. This is true where traditional high or low fluoride areas in the state were believed to exist or even where wells are on adjacent properties or as close as 100 or so feet apart.

A new water fluoride analysis program has been started by the Indiana State Board of Health and Indiana Dental Association to assist physicians and dentists who wish to prescribe systemic fluoride for their patients. The program, known as Water Analysis for Fluoride (WAFF), provides the practitioner

with the fluoride content of his or her patients' drinking water. To date, more than 200 dentists and physicians have participated.

A few comments should be made about the advisability of prescribing fluoride supplements. The Council on Dental Therapeutics of the American Dental Association accepts sodium fluoride for prescription therapy on the basis of the considerable evidence of its effectiveness in reducing dental caries when administered during the period of tooth calcification. Council recommendations for its use include:

- Prescription fluoride should be considered only where the drinking water is 0.7 ppm. fluoride and below.

- The following prescription is recommended for the child 3 years or older where the water fluoride is 0 to 0.2 ppm. (2.2 mg sodium fluoride contains 1 mg fluoride): Sodium fluoride tabs 2.2 mg; D.T.D. No. 120; Sig: One tablet daily to be chewed and swished before swallowing. Caution: Store out of reach of children.

- For children 2-3 years old, the above dosage should be reduced to one-half (i.e., 1.1 mg fluoride).

- For infants 6 months to 2 years, one 2.2 mg tablet may be dissolved in a quart of water and used for cooking and formulas, or pediatric fluoride drops may be used. When drinking water contains fluoride above 0.2 ppm., pediatric drops should be used and given according to manufacturers' directions.

- The table below indicates dosages in milligrams and may be used to determine dosage.

Age	Concentration of Fluoride in Water		
	0-0.3	0.3-0.7	Above 0.7
6 mo.-2	0.25	0	0
2-3	0.50	0.25	0
3-13	1.00	0.50	0

(Convert 1 mg of fluoride to 2.2 mg sodium fluoride in writing prescription.)

- More than a four-month supply of sodium fluoride should not be prescribed at one time. This will assure that not more than 264 mg of sodium fluoride will be in the home.

Although there is ample evidence of the effectiveness of vitamin-fluoride preparations, the Council believes these should be used for children 3 years and older where water fluoride is 0-0.2 ppm. This is because the fixed preparation of ingredients makes it difficult to adjust to age and water fluoride content. Also, there is no contraindication for the child receiving prescription fluoride to receive topical fluoride treatments from his dentist or to use a fluoride mouth rinse or dentifrice. For the caries-prone child, it often is a good procedure to administer both dietary and topical fluoride simultaneously. A fluoride dentifrice is recommended at all times.

The Water Fluoride Analysis Program works as follows: 1) The physician or dentist sends a check for \$25 to the Water Lab, Indiana State Board of Health, 1330 W. Michigan, Indianapolis 46206; 2) upon receipt of the check, 10 plastic bottles and protective boxes, all prepaid, are sent to the doctor; 3) a patient is given a kit with enclosed instructions to be filled out in full; 4) patient returns the bottle (prepaid) to the Board of Health; 5) results are sent to both doctor and patient.

* * *

For further information regarding dental health and fluoridation, write or call the Dental Health Division of the Indiana State Board of Health, 317/633-8418.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cefclor* (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁵

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefclor therapy are uncommon and are listed below: Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transient abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic: Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic: Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal: Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefclor® (cefclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630



100061

The Need for 'P.R. Thinking' in Your Medical Practice

Medical Practice Management

LEIF C. BECK, LL.B.
VASILIOS J. KALOGREDIS, J.D.
GEOFFREY T. ANDERS, J.D.
DOROTHY R. SWEENEY

Physicians are by their nature not particularly interested in the rather disdained fields of marketing, advertising and "public relations." They decided on their life work for reasons tied to technical interest and service to others, and these reasons are somewhat incompatible with the thought of "selling." In fact, as we have pressed some of our medical clients to more affirmatively market their practices, the responses often have been blank stares.

Well, the times are changing and it behooves physicians to change with them. Government studies and responsible articles follow one upon the other to demonstrate the increasing oversupply of physicians, expected to reach large numbers during this decade. The situation has in many specialties and areas already caused practice growth to fall off. Income increases appear these days to be limited mainly to fee changes, as the number of patients seen stays level or diminishes.

Doctors with busy, successful practices just don't seem interested in these symptoms. Some of them say they are so busy rendering high-quality care to so many patients that they have no time to worry; and the concern is put beneath their pro-

fessional dignity. It is, however, convenient to place oneself "above" such economic concern so long as one is earning a high income, though that level of principle tends to bend as economics change.

We expect, however, that even presently successful practices will feel an economic "crunch" in the next five to 10 years. Doctor advertising is beginning to appear and will increase dramatically. Newer practices will find ways to tell the community of favorable fee schedules, of willingness to participate in Blue Shield and accept Medicare assignments and even of expertise in special procedures. And specialists will concentrate heavy promotion of their characteristics to potential referring doctors, breaking down the reliability of presently comfortable single-source referral lives.

Governmental and Institutional Competition

Even before the predictions of doctor oversupply, there were some ominous warnings. Back in 1974, we wrote:

"Interestingly enough, very few physicians make any correlation between poor public relations and the ominous trend of the government to intervene in private medicine. When the possibility of such a relationship is suggested, most doctors express firm disbelief and attribute legislation on medical care to the persistent efforts of a few professional liberals. While such an element obviously exists and has had considerable influence in Con-

gress, the simple truth of the matter is that most members of Congress voted for these measures because their constituents wanted them. While this may be a difficult concept to accept—and I know that many cynics will describe it as naive—I would venture to guess that a public referendum on National Health Insurance at this time would find overwhelming public support for the program with perhaps a large footnote condemning the professions for the many well-publicized abuses which have appeared in the press.

"You may disagree with this conclusion; yet it seems inevitable to me that government intervention in medicine will directly and accurately reflect the state of discontent between doctor and patient."

The real solution to the governmental threat is almost totally in the hands of the private doctor who deals with his patients on a person-to-person basis. He must convey to each patient that he is the most competent and most thoughtful available physician for him or her—that he satisfies the patient's need better than the government-supported HMO or the large multi-specialty clinic. *It matters not in this respect whether that doctor actually is "best," for the patient's selection will be based only on perceptions.*

So "marketing" and "public relations" are the essential ingredients in protecting the presently successful doctor against these other likely encroachments on his practice. The HMO is in fact gobbling up large numbers of patients otherwise treated by solo doctors and

small groups. And the clinic-sized multi-specialty groups are keeping patients who cease being referred to independent non-clinic specialists.

The HMOs employ experienced, well paid marketing experts; those people are key members of prepaid practices' executive staffs. Similarly, we expect other large medical groups to begin hiring public relations experts during this decade. The architectural, accounting and law professions are already seeing this phenomenon, and there is no reason to assume that medical groups will not follow the same path.

Unless the private practitioner meets these governmental and institutional inroads by having "satisfied customers," his practice will be chipped away. So he will face competition both from the oversupply of small practices and from the growth of the big organizations.

We urge that the privately practicing physician anticipate the problems and start now to protect his practice. It may be too late to begin thinking about "public relations" and "marketing" when his practice has already begun to sputter.

What Can the Doctor Do?

Doctors can begin meeting the described threats first by simply tuning their thought processes to the importance of "P.R." They can still practice the highest quality medicine, but they must be critical whether their patients *appreciate* the quality and the concern—the doctors must care that their well-treated patients are in fact "satisfied customers."

As to office practice, there is so much to consider. The physician must be sure to provide a comfortable office environment, both as to the physical facility and in having helpful, hospitable assistants. Employees who are unsympathetic or unfriendly may have to be weeded out.

Physicians also must recognize their patients' concern for promptness. It just isn't fair or considerate to keep patients waiting simply because the doctor overbooked his schedule, and when he is unavoidably late he can at least give the courtesy of letting them know the compelling reasons for delay. Patients consider their time as valuable as the doctor's, so some "P.R." can help them accept a long wait more sympathetically.

Billings, collection follow-up and insurance handling can be conducted so the patient will appreciate and understand an office's routines. Especially as so many doctors elect not to participate in Blue Shield or accept Medicare assignments, they must be sure their patients have been told and understand the process.

There are a variety of other public relations steps which some doctors are taking and which we expect to grow in the next few years. Here are a few of them.

Patient Information Booklets

Many physicians have drafted informative brochures describing their practices and their basic arrangements of importance to patients. Such "patient information booklets" are timesaving devices for a doctor's office, and one estimate suggests they will reduce incoming telephone calls by 20% to 30%. Just as importantly, however, the booklet can be a courtesy to the patient, attempting to reach out and communicate with him or her before misunderstandings arise.

One very good use of the booklet is with new patients. They typically know little about the doctor(s) or the office and its policies, in which case some sort of advance indoctrination can help prevent problems. Consider, for example, a patient's surprise at an office's disproportionately high first office visit

fee, at its policy for payment "over-the-counter" or at its non-participation in Blue Shield and/or refusal to take Medicare assignments.

We therefore suggest a routine of mailing the patient information booklet to each new patient as soon as the first office visit is scheduled. The receptionist need merely ask the patient's address as she makes the appointment and then promptly send out the booklet. A small pre-printed card might be attached saying something like:

"We look forward to meeting you at the appointment made for (date and time): For your information and review before your visit, the enclosed pamphlet describes our practice and some of its policies. If you have any questions, please feel free to call us right away."

Some doctors complain that patient information booklets lose their effectiveness as patients misplace them or disregard them. We do not find that to be true enough to justify stopping distribution of the booklets. Furthermore, to the extent they are shown to patients' friends, the information pamphlets become low key advertising of one's practice.

Patient Newsletters

Physicians can take some advice from the dental profession. An increasing number of dentists now prepare and send quarterly newsletters to all their patients. These newsletters usually are written casually by the doctors and their employees to report on matters of interest related to their practices. An underlying purpose, of course, is to remind patients of the doctor's interest, to hold the patient's allegiance and generally to serve as good "P.R."

Professionally, a newsletter can satisfy the growing emphasis on "prevention." A doctor can remind his patients of certain health mat-

ters for their benefit, particularly including any new information in his specialty that may be relevant. This is the age of prevention, and the newsletter may be one way a physician can help raise the level of his patients' health consciousness.

We predict that in the next five years there will be a rash of physicians' newsletters addressed to patients. Developing a well-planned, high quality publication now might help put you ahead of this likely trend in which the beneficiaries will be both your patients and your practice.

Patient Questionnaires

It is commonly recognized that a physician will be the last person to learn of patient complaints about his office, its level of courtesy, the business arrangements and the like. Patients fuming over long waits in a dingy reception room, for example, tend not to express their annoyance when they are finally examined by the doctor. Similarly, displeasure at an assistant's snippiness or at the handling of one's Medicare form will only occasionally be directed personally at the doctor.

While this fact insulates the physician from any "feel" for his practice's patient relations, it is also annoying to his patients. They come to assume either that the doctor doesn't structure his practice to serve them thoughtfully or that he doesn't care, or both.

Some offices therefore periodically prepare a brief questionnaire asking patients to evaluate how they were handled. The form might be available at the reception desk for each patient to take with him or her upon leaving the office, or it may be mailed out with each bill at month-end. It asks questions about the waiting room, the various assistants' courtesy, the length of waiting time, the doctor's responsiveness in answering questions and the like.

Such a questionnaire should be drafted by the doctor(s) and the office manager as best suits that specific practice's concerns, although assistance of an independent consultant/advisor can be helpful. The benefits of such a questionnaire, of course, will be several. First, it will help the doctor and his staff learn how they can improve their own level of responsiveness to patients; it will help them structure the practice more competitively.

Secondly, a questionnaire tells a physician's patients that he really does care how they are handled in their encounters with him, his physical office and his staff. Just the fact of asking (assuming he gives attention to the answers) will thus be a positive item in a doctor's effort to market his practice.

Drug Information Pamphlet

A good client of ours recently developed a special patient information pamphlet entitled "Drug Effects and Side Effects." It is a simple preprinted folder, containing the title and the doctor's name, address and phone number on the cover. On one inside page is a brief description, in the doctor's own personalized words, telling why the booklet is being provided. And on the other inside page will be stapled the specific drug's description.

This doctor has drafted his own separate discussion of each drug he commonly prescribes. Each description is separately preprinted so the page for whichever drug he prescribes can be stapled into the folder and handed to the patient.

The patient response has been favorable. From a medical standpoint, the pamphlet has helped this physician assure that his patients are well informed as to their prescribed drugs—a form of risk control. And from a "P.R." standpoint, his patients have another indication that he really cares about their treatment and their informa-

tion. He thus comes off better on this point than do the other doctors in his specialty who do not give this "something extra."

Practice Development Advisors

We were surprised to learn recently that a company has been started in Washington, D.C. to specifically counsel medical practices on building their patient loads. They would study the doctor and his office to help him market his services more effectively, presumably including emphasis on the doctor's own personality, communication skills and the like. While we are not presently acquainted with this new company or its principals (a physician and a management consultant), we see its presence as one more example of the times.

Conclusion

Private medical practice as most of our clients know it is at a crisis point. Between the continuing supply of more potentially competing physicians and the expansion of HMOs and large clinics, the pressures on successful practitioners will grow during this decade. Practices that are now oblivious to these pressures may well find their patient bases become threatened and perhaps even begin to shrink.

These pressures will accelerate medical practices' interest in and use of marketing concepts—of "P.R." Doctors who presently disdain such thought as being below their professional quality may well find themselves forced by economics to change their thinking, or else their practices will be chipped away by others who are more open-minded.

The time to deal with change is before it is too late. We believe our readers and clients should stay ahead of the trend, developing real public relations/marketing thought now.

CME QUIZ

Clinical Echocardiography

CONTINUED FROM PAGE 373-377

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Prior to an echocardiographic examination the patient:
 - a. must abstain from food or beverage
 - b. must swallow a contrast agent
 - c. may eat or drink as desired
 - d. both a and b
2. A patient presenting with chest pain, non-specific electrocardiographic changes and an echocardiogram showing paradoxical interventricular septal motion with systolic septal thinning most likely has:
 - a. acute pulmonary embolus
 - b. acute ASMI
 - c. acute inferior MI
 - d. dissecting aortic aneurysm
3. Paradoxical interventricular septal motion, normal systolic septal thickening and a dilated right ventricle are diagnostic of:
 - a. RV volume overload
 - b. LV volume overload
 - c. aortic insufficiency
 - d. mitral insufficiency
4. M-mode echocardiography is useful in ruling out the following condition in a 10-year-old boy with a systolic heart murmur:
 - a. aortic stenosis
 - b. atrial septal defect
 - c. ventricular septal defect
 - d. rheumatic fever
5. The procedure of choice in the initial evaluation of a patient suspected of having a left ventricular aneurysm is:
 - a. left ventricular angiography
 - b. phonocardiography
 - c. 2D echocardiography
 - d. M-mode echocardiography
6. M-mode echocardiography can be used to differentiate:
 - a. LVH from LV dilatation
 - b. valvular vegetation from thrombus on the leaflet
 - c. RV volume overload from congestive cardiomyopathy
 - d. both a and c
7. 2D echocardiography is the non-invasive procedure of choice in evaluating mitral stenosis because:
 - a. orifice size can be measured
 - b. pressure gradient can be determined
 - c. extent of fibrosis and calcification can be assessed
 - d. both a and c
8. A normal M-mode echocardiogram rules out the following conditions:
 - a. mitral stenosis
 - b. coronary artery disease
 - c. pericardial effusion
 - d. both a and c
9. Echocardiography is useful in detecting the following condition in a patient with chest pain:
 - a. mitral valve prolapse
 - b. coronary artery disease
 - c. pericarditis
 - d. all of the above
10. Management of a patient with a large pericardial effusion on M-mode echocardiography should include:
 - a. pericardiocentesis to relieve tamponade
 - b. close observation of vital signs
 - c. antibiotic therapy
 - d. carbon dioxide study

Following are the answers to the CME quiz that appeared in the May 1981 issue of THE JOURNAL: "Pulmonary Tuberculosis: Diagnostic Clues on the Chest X-Ray," by Stephen J. Jay, M.D.

May CME Quiz Answers

- | | |
|-------|-------|
| 1a. C | 2c. C |
| 1b. D | 2d. D |
| 1c. B | 3. b |
| 1d. A | 4. d |
| 2a. B | 5. d |
| 2b. A | 6. c |

Answer sheet for Quiz: (Clinical Echocardiography)

- | | |
|------------|-------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for credit for this month's quiz, send your completed, signed application before July 10, 1981, to the address appearing at the top of this page.



AUXILIARY REPORT

Congratulations on your
recent election!
Have a good year!

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

Meet the ISMAA Officers for 1981-1982

President-elect

Mrs. Robert Schleinkofer (Karen)



Karen and her husband Bob live in Fort Wayne, where he is in Family Practice. She has just completed her third term as treasurer for the State Auxiliary so she is well prepared to move to the office of president-elect. Karen doesn't confine her activities to the Auxiliary solely; she is involved with their five children in everything from Girl Scouts to high-school fund-raising activities. She has been secretary of her Parish Council for two years, secretary-treasurer of her Neighborhood Association, and a continuing CPR instructor.

1st Vice-President

Mrs. Peter Classen (Hulda)



Hulda and her husband Peter live in Dunlap, a suburb of Elkhart, where he is in Family Practice. They have four children.

Hulda's Auxiliary activities have been many and varied—from the county level where she served as president, to treasurer of the State for two years. At the moment, in addition to her volunteer activities, Hulda manages to be the principal broker of Environmental Realty and the president of Edgewood Development Corporation. She represents the Home Builders Association of Indiana on the Elkhart County Planning Commission.

Recording Secretary

Mrs. Marvin Reul (Susan)



Susan and her husband Marvin live in Kokomo, where he is a Family Practitioner in a six-member clinic. They have two children.

Susan received her diploma in nursing from Hahnemann Hospital School of Nursing in Philadelphia. She is currently a part-time student at Indiana University-Kokomo, studying for a bachelor's degree in nursing. This is her third state level auxiliary job, having previously served as AMA-ERF chairman and co-chairman of the House of Delegates.

Treasurer

Mrs. Everett Bickers (Dorothy)



A native of Kentucky, Dorothy was transplanted to Indiana where she married Everett (this occurred during undergraduate years). She is a graduate of Eastern Kentucky University and taught biology in the New Albany high school during medical school years. They now reside in Floyds Knobs, where Everett is a solo practitioner of Family Medicine. They have four children.

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BOOK REVIEWS

Born at Risk: The Struggle for Life in an Intensive Care Nursery

B. D. Colen. Copyright 1981, St. Martin's Press, New York. 212 pages, illustrated. Hard cover, \$9.95.

Here we are again: a Doctor of Medicine trying to review for a professional journal a book written for the lay public by an experienced and clever "science writer"—more accurately, "science reporter." Inevitably, the points-of-view of the professional and of the layman—even the lay reporter—are different by reason not only of training and habit, but also by reason of the responsibility borne by the professional and by no one else. Because of this, the professional is always going to feel some reservation regarding whatever the lay reporter may "reveal."

Regardless of all this, it is well for us professionals to see ourselves as others see us—accurately or not. On the whole, Dr. Colen proves himself to be a close observer and shows a surprising (and gratifying) grasp of his subject matter. The latter alone sets him apart from many authors who attempt this sort of reporting, and he must be given great credit for it.

On the other hand, some professionals who peruse this book will at times become a bit impatient with the

emphasis on drama, but it must be remembered that this area of medicine involves the heart of human existence and is thus intrinsically dramatic. Besides, when Colen does steer a bit wildly, his wheels may ride the berm, but never leave the road.

All in all a most interesting account, of which the depiction of the parents' reactions is probably the most instructive for a physician. A few errors in spelling do occur, such as *breach* for *breech*, *ventrical* for *ventricle*, and *dextraversion* for *dextroversion*, noticeable only to a physician. Another facet of Colen's presentation is the great understanding he shows for the role of the nurse in the Intensive Care Nursery. Nurses and doctors both should be greatly interested in this book.

A. W. CAVINS, M.D.
Terre Haute
Gynecology

Current Medical Diagnosis and Treatment

1981 edition edited by Marcus A. Krupp, M.D., and Milton J. Chatton, M.D. Lange Medical Publications, Los Altos, Calif. 1,100 pages, soft cover \$21.

My guess is that nearly every internist and family physician, once he has been introduced to it, will have this useful volume on his office book shelf to be used for quick reference in his daily encounters with clinical problems. It embodies most of the good features of Conn's Current Therapy and Merck's Manual but adds much more useful clinical guidance.

In the preface the authors state that their yearly updated volume should be regarded as a ready desk reference rather than a mini-text book of medicine. It is true that the clinical descriptions of disease are less detailed than in the larger texts such as those of Harrison, Besson and Harvey. On the other hand, the essentials are there and in such a concise form that they can be grasped quickly. Even such problems as fluid and electrolyte, and immunologic and genetic disorders are dealt with in enough detail to be of benefit in a given clinical situation without the necessity for delving into specialized texts.

Thirty-three authors, most from the west coast, have collaborated in the preparation of this up-to-date, authoritative volume. Even mid-westerners will recognize such names as Jawetz, Sokoloff and McDevitt among others. References given at the end of most accounts of the various clinical conditions, and always at the end of chapters, are, with rare exceptions, sources easily available to practicing physicians. Most are for material published within the past five years.

Several years ago I was introduced to the Lange series—"A Concise Medical Library for Practitioner and Student" by medical students who are always looking

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for medical information that is both authoritative and concisely presented. Since then I have obtained and used each yearly volume of *Current Medical Diagnosis and Treatment*. I think most physicians dealing with patients day by day also will find it of very practical value.

PAUL S. RHOADS, M.D.
Richmond
Internal Medicine

Coronary Care

Edited by Joel S. Karliner and Gabriel Gregoratos. Copyright 1981, Churchill-Livingstone, New York. 1,108 pages, with illustrations. \$50.

Organized efforts to save "hearts too young to die" began in 1962 with the establishment of coronary care units. With these came many revolutionary concepts (like the expanding role of the intensive cardiac care nurse) and many still unanswered questions: e.g., Is the CCU really efficacious or cost effective?

Since then, CCU's have undergone spectacular changes in their mission. They now treat many different conditions besides coronary artery occlusions. Expectations have changed, too. Invasive hemodynamic monitoring capability is now considered a minimum standard of care. Anticoagulation—at least with low dose heparin during hospitalization—is again recommended for most patients with acute infarcts. And intra-aortic balloon counter pulsation is rapidly being accepted, not only to treat pump failure, but also to reduce infarct size or control ischemia in selected patients.

This book fills a void by detailing these and other aspects of contemporary coronary care. Except for intracoronary thrombolysis, virtually nothing important has been omitted. Pitfalls in hemodynamic monitoring, guidelines for the safe use of balloon-tipped catheters, even psychiatric and medical-legal aspects of coronary care are well covered. Some discussions skip the exceptions to the rules. Instances when CPK values underestimate infarct size, due to poor myocardial washout, for example, are ignored.

Most discussions, however, are balanced and thorough. Clinically relevant basic science material, especially about topics like cardiac defibrillation, enzymology, nuclear cardiology, electrophysiology, and pharmacology, abounds. And, of general interest, an excellent chapter on statistics points out several common errors. This fosters a genuine understanding of statistical principles and thus teaches readers how to evaluate what they read. The wealth of particularities that illuminate each page will thus appeal to all who engage in intensive cardiac care.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

Manual of Pulmonary Procedures

Stephen J. Jay and Robert B. Stonehill, editors. Copyright 1980, W. B. Saunders Company, Philadelphia. 187 pages, \$11.95.

This pocket-sized manual describes in detail thoracentesis, needle biopsy of the pleura, chest tube placement, transtracheal and transthoracic aspiration. Chapters are also devoted to skin antisepsis, radiologic techniques and drug use relevant to these five procedures. Excellent drawings, radiographs and tables complement the prose.

The book evolved within the Indiana University pulmonary teaching service to fill a conspicuously unoccupied niche in the medical literature. Medical students and housestaff will benefit most from the book. I wish such a publication had been available during my formal training and am thankful to have it now.

My principal criticism of the book is its awkward division into one section discussing practical techniques and a separate section discussing rationale, indications, contraindications and complications of each procedure. Thus, each procedure is discussed in two chapters physically separated within the book. This has led to unnecessary repetition when, for example, indications and contraindications for each procedure are listed in both chapters. Too much of the same material is contained in the chapters on thoracentesis and pleural biopsy.

Most critical editing would allow space for inclusion of tracheostomy, endotracheal intubation, arterial puncture for blood gas determination and Swan-Ganz catheter placement. Many who would refer to this manual would find discussions of these additional procedures useful. The *Atlas of Bedside Procedures* by T. J. Vander Salm, *et al.* (Little, Brown, 1979) covers both pulmonary and nonpulmonary procedures but is limited primarily to discussions of technique. The Jay and Stonehill manual covers fewer procedures much more thoroughly.

ERIC L. DYER, M.D.
Bedford
Internal Medicine

APPLETON-CENTURY-CROFTS, medical/nursing publishers, has released "What Every Family Should Know About Strokes." It is written by Lucille Hess and Robert E. Bahr, M.D. to acquaint every family member—from the youngest to the oldest—with the most important family role in the physical and mental rehabilitation of a stroke patient. Hess is a practicing speech pathologist with more than 10 years experience. She is now completing work on her Ph.D. in Speech Pathology and Language. Dr. Bahr is a family physician with 20 years experience. He helped to found the Stroke Clubs of Fort Wayne, Indiana.

FUTURE FILE

Hospital Staff Leadership Seminar

An AMA Hospital Medical Staff Leadership Seminar will be conducted at the Drake Hotel in Chicago on Sept. 18 and 19. Nature and structure of a medical staff, its functions, its internal organization and its external relationships will be covered. Tuition is \$350—AMA members pay \$250. The theme of the meeting is "Be As Effective in Your Medical Staff Duties as You Are in Your Clinical Duties." For further information, write to Department of Hospitals & Health Facilities, AMA, 535 N. Dearborn, Chicago 60610.

Emergency Physicians Course

Career Emergency Physicians are invited to a Post-graduate Institute conducted by the Wayne State University School of Medicine, Detroit, Michigan, Oct. 12-16. The course is designed for physicians actively engaged in the full-time practice of emergency medicine.

For full information write or call: P.I.C.E.P., Division of CME, 9B-32 DRHUHC, 4201 St. Antoine, Detroit 48201, (313) 577-1180.

Community Cancer Care Seminar

The Second National Seminar on Community Cancer Care will be conducted Sept. 25, 26 and 27 at the Hyatt Regency, Indianapolis, under sponsorship of the Clinical Oncology Center and Graduate Medical Center of the Methodist Hospital of Indiana. For information write to: Office of Continuing Medical Education, 1604 N. Capitol Ave., Indianapolis 46204.

1981 Illinois Congress on CME

"How Physicians Learn: Effective Methods in CME" is the theme of the 1981 Illinois Congress on Continuing Medical Education, to be held Sept. 11-12 at the Oak Brook Hyatt Hotel.

This year's Congress is the second of a four-year program cycle presenting all the fundamentals of CME planning.

For information, contact the Illinois Council/CME, 55 E. Monroe, Suite 3510, Chicago 60603. Tel: (312) 236-6110.

ENT Symposium for Family Physicians

An Ear, Nose and Throat Symposium for the Family Physician will be held July 31 through Aug. 2 at The Lodge, Vail, Colo.

The symposium has been approved for credit by the American Academy of Family Practice, the American Osteopathic Association, and the Colorado Medical Association. It is sponsored by the Associates of Otolaryngology in affiliation with the combined medical staff of Porter Memorial Hospital and Swedish Medical Center.

For details, contact Lisa Lee, 950 E. Harvard, Suite 500, Denver, Colo. 80210. Tel: (303) 744-1961.

Biofeedback Weekend Workshop

The Biofeedback Society of Indiana announces a Weekend Workshop and Public Lecture on June 27 and 28 at the Holiday Inn North, 3850 DePauw Blvd., Indianapolis. Registration fee for non-members is \$40 for June 27, \$50 for June 28, \$80 for both. For students it is \$25, \$25, \$40. Lunch is included on both days. Register prior to June 15. Call Cyd Pomerance at (317) 353-5362.

Correctional Institutions Conference

The AMA announces its Fifth National Conference on Medical Care and Health Services in Correctional Institutions. The Conference will meet Oct. 30 and 31 in the Downtown Marriott Hotel, Chicago. The registration fee will be about \$80.

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Advanced Echocardiography Program

"Advanced Echocardiography" is the subject of an Extramural Program to be presented by the American College of Cardiology Sept. 9 to 11 at the Hyatt Regency Indianapolis. Krannert Institute of Cardiology is co-sponsor. Dr. Harvey Feigenbaum will be the director.

Write to Registration Secretary, American College of Cardiology, 9111 Old Georgetown Road, Bethesda, Md. 20014.

English Class for FMGs

"Improving English Pronunciation for Foreign Medical Graduates" is the subject of an AMA seminar to be conducted on Saturday, July 18, at the AMA headquarters, 535 N. Dearborn St., Chicago.

Registration fees are \$130 for AMA members, \$170 for non-members and \$80 for residents. The fee includes nine practice tapes and a 134-page manual. Registration is limited to 20 persons. Early registration is requested. Write to 1981 AMA Seminar in care of AMA.

Cancer Therapy Meeting in St. Louis

"Current Concepts in Cancer Therapy" is the subject of a future CME Conference at the Washington University School of Medicine in St. Louis Dec. 10-12. It is rated at 19 hours credit by AMA, the AAFP and the AOA.

Details are available from the Office of CME at the medical school, Box 8063, 660 S. Euclid, St. Louis, Mo. 63110, or by phoning (314) 454-3873.

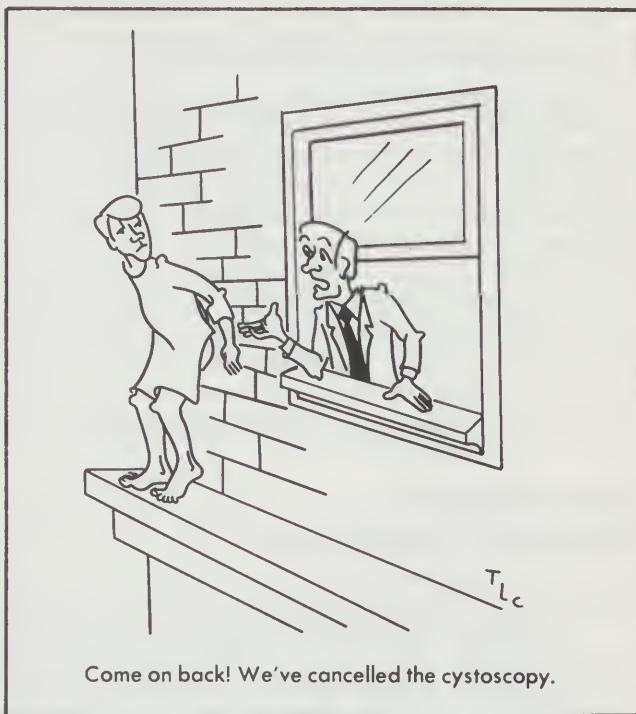
ACIP Annual Convention Slated

The sixth annual convention of the American College of International Physicians will be held Aug. 20-23 at the Holiday Inn, Lake Shore Drive, Chicago.

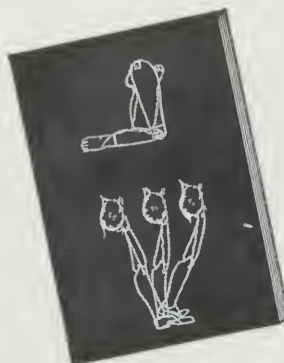
Dr. Felix Millan of East Chicago, Ind., will be installed as president of the college. Scientific sessions will meet on three successive days during morning hours. Category 1 CME credits for 12 hours will be awarded.

Chicago Seminar on Breastfeeding

The Ninth Annual Seminar for Physicians on the subject of Breastfeeding will be held on July 21 and 22 at the Conrad Hilton Hotel, Chicago. It is sponsored by the Department of Continuing Medical Education, La Leche League International. Registration fee is \$175 if postmarked prior to June 20 and \$200 thereafter. Mail entry to the League at 9616 Minneapolis Ave., Franklin Park, Ill. 60131.



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NEWS NOTES

Dues Increase Planned by AMA

An incremental dues increase will be recommended by the AMA Board of Trustees at this month's 1981 Annual Meeting of the House of Delegates. Incremental increases of \$35, \$30 and \$25 in 1982, 1983 and 1984, respectively, will allow the AMA "the most activity for the least increase in dues."

An alternative option calls for incremental increases beginning with \$70 in 1982 to provide a "continuation of current activity." Finally, a "must only programs" option would require incremental dues increases of \$25, which would result in "substantial reductions in expenditures at the cost of valuable programs."

Hayes Named as New FDA Commissioner

Arthur H. Hayes, Jr., M.D., a member of the United States Pharmacopeial Convention Board of Trustees, has been selected as the new commissioner of the U.S. Food and Drug Administration by HHS Secretary Schweiker. Dr. Hayes is currently chief of the Clinical Pharmacology Division and professor of medicine and pharmacology at Pennsylvania State University College of Medicine, Hershey, Pa.

Your Hoosier Doctor Says . . .

ISMA's PR department recently launched a new monthly series of health and medical information articles. The articles are based largely upon educational materials from the AMA and other authoritative sources; additional information, personal quotes and a contact reference are supplied by ISMA members. "Your Hoosier Doctor Says . . ." is being distributed to all daily and weekly newspapers in Indiana.

The articles are available for distribution to patients as waiting room reading material or as handouts of general information. Physicians interested in obtaining copies of individual articles should contact the PR department at ISMA headquarters. A minimal charge will be made for reproduction and mailing: \$6 per 100 copies.

Titles to date:

- Plan Ahead for Your Babysitter
- 'Child-Proof' Your Home to Prevent Accidents
- Children With Asthma Can Be Helped to Live

Normal Lives

- Guard Your Child's Safety in Automobiles
- If You Don't Want to Run, Walk
- Racquetball May Be Hazardous to Your Eyes
- Make Exercise a Habit for Health
- Think Twice About Those 'Healthy' Saunas

Heart Disease Materials Available

Educational materials on heart disease are available from Best Foods Nutrition Information Service. "Atherosclerosis" is a primer on the chemistry of lipids and their dietary management by eminent scientific authorities. "Atherosclerosis Update: Emphasis on Diet" is a concise review of the important findings in this area published over the last decade.


Requests for free copies of up to 70 of each should be sent to the Information Service, Box 307, Dept. MSL-A, Coventry, Conn. 06238.

Two 'Jail Physicians' Honored

Two Indiana physicians soon will be awarded Certificates of Recognition by the AMA for their efforts as "jail physicians."

Dr. Samuel W. Kirtley, physician for the Montgomery County Jail, Crawfordsville, was credited with being instrumental in helping the jail earn its first AMA accreditation, granted in April for a two-year period. The Montgomery County Jail became Indiana's 11th jail to receive the accreditation.

Dr. Peter L. Evers, physician for the Vanderburgh County Jail, Evansville, was cited for his efforts toward the jail's reaccreditation. It was first accredited four years ago.



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AMA Asks FDA for Drug Action

In a letter to the Food and Drug Administration, the AMA has urged the FDA to "devise a means to implement the AMA recommendation to establish a 'special category drug/agent committee' to accept and apply the investigative work of selected foreign governments and agencies to meet the U.S. criteria for approval or disapproval of an agent or drug."

The AMA noted that its policy, adopted in 1980, is in keeping with recent recommendations of the GAO and the House Subcommittee on Science, Research and Technology.

Medical Training A-V Materials

Films and videocassettes on 11 different topics suitable for in-service medical training programs are available from the 3-M Company. They are on loan, without charge, to medical facilities and are catalogued in a new brochure that may be obtained by writing 3M, Medical Products Division, Department ME81, Box 33600, 3M Center, St. Paul, Minn. 55144.

INNOCENT MURMUR

There's a Word for It

RICHARD J. NOVEROSKE, M.D.
Evansville

For some time now a number of physicians have urged that we use the term "innocent murmur" as the name for heart murmurs that are found but after evaluation are thought to be innocent or of no clinical significance. This sounds like a good term, and I think it should be used more often.

But there is still frequent use of the term "functional murmur" for this same type of innocent or insignificant heart murmur. I think "functional murmur" misses the mark.

Many patients, upon being told that they have a "functional murmur," don't understand what the word "functional" means. When they are told that it is innocent or insignificant, they are reassured. But some later learn that the word "functional" means the way something works, and that is a source of concern. For to be told that one's heart has a "functional murmur" means that one's heart is not working right in the thinking of those who equate function with work. And this is logical.

I think it is better to abandon the term "functional murmur."

Dr. Faris Nominated for Alumni Seat

Dr. James V. Faris, staff cardiologist at the Indianapolis VA Medical Center, has been nominated for one of the three alumni seats on the Indiana University Board of Trustees.

He is a 1968 graduate of the I.U. School of Medicine and presently serves at the school as an associate professor of medicine. He is a member of the school's Academic Standards Committee and of the All-University Faculty Affairs Committee. He is a life member of the I.U. Alumni Association.

New Obstetrics Teaching Film

Ortho Pharmaceutical Corporation announces the addition of a new film, "Modern Obstetrics: Normal Labor and Delivery," to its library of award-winning films. It is available on a free-loan basis to hospitals and medical groups. The Ortho film collection also contains several other teaching films in the obstetric field.

For a complete description of these free-loan 16mm sound films and how they may be ordered, write to the distributor, KAROL MEDIA, 625 From Road, Paramus, N.J. 07652, or call (201) 262-4170.

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NEWS NOTES

Here and There . . .

. . . **Dr. Randall A. Lee** of Martinsville discussed "types of heart attacks and what causes them" during an April meeting of the Martinsville Rotary Club.

. . . **Dr. Ned B. Hornback** of Indianapolis discussed "Recent Advances in Cancer Therapy" during the annual awards dinner of the Loan Cupboard for Cancer Patients in April.

. . . **Dr. Samuel L. Milligan** of South Bend discussed "Diabetes Mellitus and the Kidney" in April during a meeting of the South Bend Diabetes Association.

. . . **Dr. Robert S. Kepner** of Anderson discussed "Children and Cars: Lesson in Safety" in April at St. John's Medical Center.

. . . **Dr. Douglas H. White** of Indianapolis discussed coronary heart diseases during an April meeting of the Shelbyville Lions Club.

. . . **Dr. James A. Peterson** of Elkhart is serving this month as medical director of a summer camp for children sponsored by the Lay Diabetic Society of Elkhart County.

. . . **Dr. Thomas E. Moran** of Indianapolis was among panelists who discussed "Living With the Senior Citizen" during a Community Outreach Program held in April at St. Francis Hospital Center.

. . . **Dr. Brandt L. Ludlow** of Bloomington has been named a diplomate of the American Board of Obstetrics and Gynecology.

. . . **Dr. Lambro Dimitroff** of Calumet City has been appointed to a four-year term on the Lake County Health Board.

. . . **Dr. James M. Fink** of South Bend conducted three seminars for the public on coronary artery disease in April and May at St. Joseph's Medical Center.

. . . **Dr. Frank M. Scott**, a South Bend general surgeon, has retired from practice after 38 years as a partner in the South Bend Clinic.

. . . **Dr. Glenn W. Irwin** of Indianapolis has been named to the board of directors of Goodwill Industries of Central Indiana.

. . . **Dr. George F. Rapp** of Indianapolis discussed the importance of school screening for scoliosis at an April forum sponsored by the Scoliosis Association of Indianapolis at St. Vincent Hospital.

. . . **Dr. Harley P. Palmer** of Franklin discussed the medical dangers of drug abuse during a public meeting in April at the Franklin Boys Club.

. . . **Dr. Ronald G. Blankenbaker**, Indiana state health commissioner, was the featured speaker at the dinner meeting of the annual Kirkpatrick Workshop on Aging, held in Muncie in April.

. . . **Dr. Neil J. Stalker** of Peru was among panelists discussing children with cancer during a forum held recently in Kokomo for Families Facing Cancer.

. . . **Dr. Kenneth E. Schemmer**, an Anderson surgeon, was among panelists discussing hospices during

the Spring 1981 Health Forum series offered to the public by St. John's Medical Center in Anderson.

. . . **Dr. Charles M. Clark** of Indianapolis discussed research and development in diabetes during a recent meeting of the Johnson County Diabetes Association.

. . . **Dr. Nancy C. A. Roeske** of Indianapolis has been appointed to the AMA Council on Continuing Physician Education.

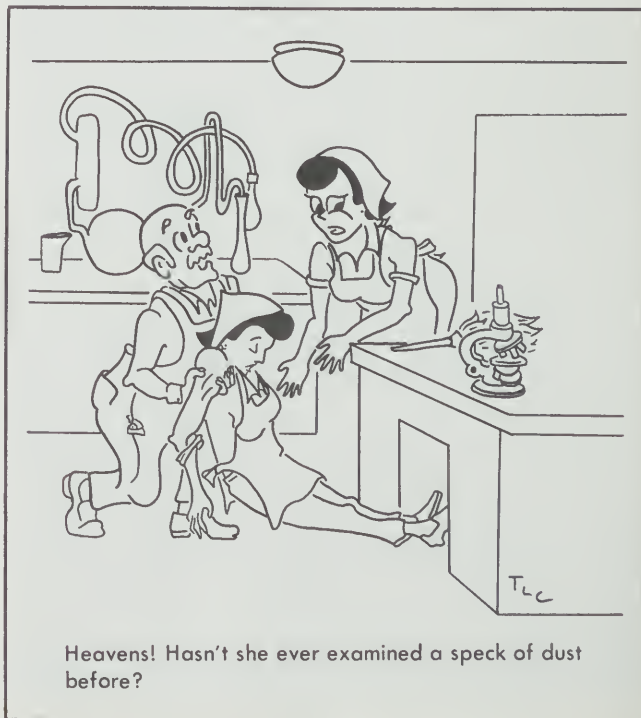
. . . **Dr. Frederic L. Schoen** of Carmel will serve as chairman of Reference Committee A during the AMA's 1981 Annual Meeting, June 7-11 in Chicago.

. . . **Dr. Felix Millan** of East Chicago will assume the presidency of the American College of International Physicians in August during the college's annual convention in Chicago.

. . . **Dr. Laurence H. Bates** and **Dr. William M. Dugan**, both of Indianapolis, addressed a seminar at Evansville's Welborn Baptist Hospital in March that was designed to help people recognize and deal with health-related problems that may keep them from job advancements. It was co-sponsored by the University of Evansville's College of Alternative Programs.

. . . **Dr. John R. Poncher**, a Valparaiso pediatrician, addressed a conference on the care of handicapped children at I.U. Northwest's Medical Education Center in March.

. . . **Dr. Ronald N. Rhodes** of Valparaiso discussed "Communicating With Your Doctor" during the March meeting of Family Forum.





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When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section). Complete literature available on request from Professional Services Dept. PML.



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Taxpayers Get Taken Hook, Line and Sinker

Commentary

RICHARD L. LESHER

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What would you do if, famished for a good fish dinner, you went to your favorite restaurant, only to find the entrees limited to broiled grunt fish, baked mudblower and fried ratfish?

This scenario, says Senator Bill Roth of Delaware, has haunted the good folks at the National Marine Fisheries Service who are responsible for promoting more consumption of seafood. So, worried that ugly names will dissuade Americans from eating more fish, these bureaucrats decided to purge every ugly fish name and replace it with an appetizing one.

First they spent \$63,000 on a contract to study how to retile fish. Unfortunately, this only proved the feasibility of varying the ugly titles of different fish. No problem. A second study, par for the course in Washington, was approved to find the new fish names.

But still no luck. The second study didn't produce any new names either, only a set of criteria to judge which fish, ugly names and all, taste better. After spending seven years, nearly half a million dollars, and drawing on the services of more than 50 agency employees, not one fish has been renamed.

Suit Against Physician Barred by Time Limits

Court Action

A malpractice action brought more than two years after the alleged negligence occurred was barred by the statute of limitations, an Indiana appellate court has ruled.

A patient broke her ankle in 1965, and a physician set the fracture by using two screws. After the ankle healed, the patient complained about pain and swelling of the ankle. The physician told her to learn to live with the discomfort and said that the pain would not be reduced by removing the screws.

In 1970 or 1971, the patient consulted physicians because of back pain. They x-rayed her ankle but did not associate the ankle injury with the back pain.

In 1975, a physician informed the patient that one leg was 1¼ inches longer than the other, attributing the difference to alleged improper treatment of the ankle fracture. This difference allegedly caused the back pain.

Within two years of her visit to the last physi-

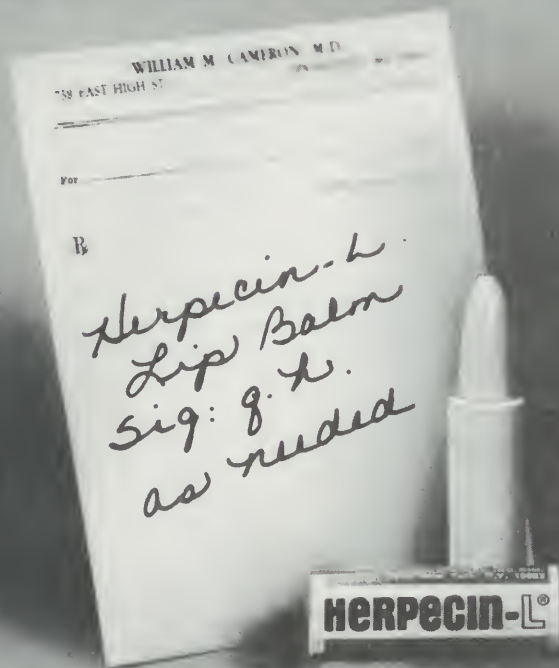
cian, the patient filed a suit against the physician who treated the fracture. The trial court granted a motion for summary judgment, finding that the claim was barred by the statute of limitations.

On appeal, the patient contended that the two-year limitation period began to run in 1975, when she discovered the cause of action. The appellate court pointed out that the statute in question was an occurrence rule, not a discovery rule. Therefore, the two-year limitation period began to run from the date of the alleged negligent treatment.

Since the constitutionality of the limiting statute as applied to patients unaware of the existence of causes of action against professionals was not raised or argued at the trial or appellate levels, the court said, it could not decide the constitutionality of the statute as applied to a situation where the statute of limitations has run before a person has any knowledge of malpractice. The court affirmed the judgment of the trial court.—*Alwood v. Davis*, 411 N.E.2d 759 (Ind. Ct. of App., Oct. 30, 1980)

Courtesy of *The Citation*, March 15, 1981.

Dx: recurrent herpes labialis



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2.	James P. Beck, Washington	Horace Norton, Washington	May 28, 1981, Washington
3.	Wallace D. Johnson, Bedford	Peter H. Livingston, Bedford	April 4-5, 1981
4.	Manuel G. Garcia, Batesville	Ali A. Daftary, Batesville	May 13, 1981
5.	James B. Johnson, Greencastle	Clyde Jett, Seelyville	May 27, 1981, Cloverdale
6.	William F. Kerrigan, Connersville	Wylie G. McGlothlin, New Castle	May 6, 1981, Richmond
7.	I. E. Michael, Indianapolis	M. O. Scamahorn, Pittsboro	June 24, 1981, Indianapolis
8.	Larry G. Cole, Yorktown	Grace C. Kammer, Muncie	June 17, 1981, Muncie
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12.	Linus J. Minick, Churubusco	Antonio B. Dones, Fort Wayne	Sept. 17, 1981, Fort Wayne
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COMMERCIAL ANNOUNCEMENTS

POSITION now available in the Department of Internal Medicine for physician with subspecialty interest. 50-man multispecialty clinic in ideal location in southern Wisconsin. Contact R. E. Hassler, M.D., The Monroe Clinic, Monroe, Wisc. 53566. Tel: (608) 328-7000.

EMERGENCY MEDICAL POSITIONS—Emergency Consultants, Inc. has select opportunities in emergency medicine available on a locum tenens or full time basis. Positions in resort and recreational areas offer flexible scheduling, competitive hourly rates, and excellent benefits including malpractice insurance. Our organization accommodates professional and personal physician goals by providing a wide variety of locations with varying patient volume. For further information, contact Emergency Consultants, Inc., Suite 121, 2240 South Airport Road, Traverse City, Mich. 49684. 1-800-253-1795, or in Michigan 1-800-632-3496.

FOR VACATION RENTAL: 1,500 sq ft luxury townhouse close to ocean, swimming, tennis, golf; in Palmetto Dunes, Hilton Head Island, S.C. \$400 per week, accommodates six. Phone (812) 275-2800.

GET TAX DEDUCTIONS from Real Estate investments. Retiring physician advising best way to keep earnings is through Real Estate investments. Excellent opportunity to purchase from owner. Call 317-357-4129.

AVAILABLE July 9, 1981, for solo or group family practice. Well trained in Ob/Gyn, medicine and surgery. Any size community. Will consider E.R. or house-physician position. I have Indiana license. Call Dr. Thakkar, (512) 881-4000 days, or (512) 993-2705 evenings.

RETIRED PEDIATRICIAN—Let's presume that you are still interested in your field but have given up active practice. We are much in need of your wisdom and experience as advisor and counselor to our youth health magazines (8 of them) which feature health and life improvement at each level of elementary school. Do get in touch. Contact Cory SerVass, M.D., 317-636-8881.

FOR LEASE: Office adjacent to hospital in growing medical community. Additions to 350-bed hospital and mental health unit now under construction. Vincennes, Indiana. Address inquiries to N. M. Welch, M.D., Rte 3, Box 17, Vincennes, Ind. 47591.

RADIOLOGIST—Our 120-bed facility needs a Director of Radiology. Board certification in radiology is desirable as well as ultrasound and nuclear medicine training. Hospital presently bills for the professional component. Come enjoy country life within minutes of Indianapolis. Interested parties should contact: James T. Fallon, Administrator, Margaret Mary Community Hospital, Inc., 321 Mitchell Ave., Batesville, Ind. 47006.

CALIFORNIA—DIRECTOR POSITIONS AVAILABLE. Emergency medicine physicians needed for rural northern California areas. Excellent opportunity to join growing partnership of career emergency physicians. Emergency medical residency, Board Certification or at least two years experience required. Excellent benefit package and profit sharing. Contact Judy Neal, California Emergency Physicians, 440 Grand Ave., Suite 500, Oakland, Calif. 94610, (415) 832-6400.

CAMBRIDGE CITY, Indiana needs Family Physicians. We are a beautiful community of 5,000 and seek one, preferably two, family physicians. We offer small town stability and easy access to Indianapolis, Dayton and Cincinnati. Your hospital-based care is available only 14 miles away at Reid Memorial Hospital, Richmond, Ind., a 359-bed regional referral center. Construction has just been completed on a physicians' office building that you can furnish to suit your style of practice. First-year practice guarantee is available. Send your C.V. to: Theodore J. Sobol, Physician Recruitment Committee, Reid Memorial Hospital, 1401 Chester Blvd., Richmond, Ind. 47374.

FULLY EQUIPPED medical building for sale or rent. Located in Bunker Hill, Ind., near Kokomo. Address all inquiries to Ruben R. Gaboya, Estate, Box 577, Bunker Hill, Ind. 46914.

FAMILY PRACTITIONER or General Practitioner to join well established practice in Central Illinois. Modern 50-bed hospital, guaranteed income, excellent potential. Contact William Hurteau, Administrator, Mason District Hospital, Havana, Illinois 62644. Call collect 309-543-4431.

VACATION HOMES FOR SALE—Two and three bedroom condominium vacation homes at The Pointe on Lake Monroe, a luxurious golfing community south of Bloomington. Excellent long or short term rental potential. May be purchased furnished or unfurnished. Low 40s to 70s. Call Belva Wilson at Owens, Bryan and Reed, Realtors, (812) 336-6888 or (812) 334-3194.

EMERGENCY MEDICINE position available: Emergency Physician to join professional group practicing in superior emergency department in Hammond, Indiana. Contact Dr. Robert F. Guthrie at (312) 474-0014 or Emergency Care, S.C. at (312) 327-0777.

EMERGENCY MEDICINE—TERRE HAUTE: Directorship opportunity available 7-1-81 in modern, moderate volume trauma center with excellent specialty and subspecialty support. This metropolitan community offers many educational, recreational, and cultural amenities. Annual minimum guarantee plus production based bonus (i.e., fee-for-service). Paid professional liability insurance, flexible scheduling with no on-call involvement. For details, send credentials in confidence to John Kutchback, 970 Executive Parkway, St. Louis, Mo. 63141 or call toll-free 1-800-325-3982.

Commercial announcements are published as a service to members of the Indiana State Medical Association. Only advertisements considered to be of advantage to members will be accepted. Advertisements of a truly commercial nature (e.g., firms selling brand products, services, etc.) will be considered for display advertising.

Charges for commercial announcements are:

25c for each word

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Address: THE JOURNAL, Indiana State Medical Association, 3935 N. Meridian St., Indianapolis, Ind. 46208.

Deadline: First working day of month PRECEDING month of issue.

WHAT'S NEW?

CONTINUED FROM PAGE 342

CIBA announces a novel motion sickness preventive and treatment, which consists of a thin adhesive disk that may be worn behind the ear. The disk allows slow and uniform absorption, over a period of three days, of scopolamine. It was devised for astronauts. Approximately 30% of both United States and Russian astronauts have reported motion sickness. It is a prescription item. The official designation is Transderm-V Scopolamine Therapeutic System. It will be available to the public nationally in July.

3M COMPANY has a new polyethylene pouch that attaches to skin or drapes and collects irrigating fluid and other fluids during operations and thereby prevents widespread soaking of the drapes. The pouch has a built-in mesh filter to permit easy retrieval of sponges, bone, tissue specimens or instruments. It has a dependent tube drain. Sold in sterile 10-packs.

THE PUBLISHERS of *What to Buy for Business*, a highly successful monthly publication printed in England, began publishing a U.S. edition in March. *What to Buy for Business* is an independent consumer report on business equipment and services. It does for businesses what magazines such as *Consumer Report* do for private individuals. It provides, for example, the latest inside information on price, utilization and upkeep on typewriters, copiers and stationery supplies. The new magazine, published in Fort Collins, Colo., is priced to be affordable for small offices.

SEARLE is expanding its parenteral product line. Two new intravenous solutions are Multi-Electrolyte Concentrate and Sodium Bicarbonate Injection. Multi-Electrolyte is used as a supplement to parenteral nutritional solutions delivered intravenously, for the purpose of facilitating amino acid utilization and maintaining electrolyte balance. Sodium Bicarbonate is used in the treatment of acidosis and as a neutralizer for I.V. solutions.

HEALTH ADMINISTRATION PRESS announces two new books: *Enhancing Hospital Efficiency: A Guide to Expanding Beds Without Bricks*, by Peterson, Manchester and Toan, 142 pages, \$15; and *Improving Health Care Management: Organization Development and Organization Change*, by George Wieland, 546 pages, \$49.95.

LOSSING ORTHOPAEDIC COMPANY announces the Cottrell 90/90 Backtrac® system. It is a conservative method of low back traction in the 90/90 position, with flexion and pelvic tilt for relief of symptoms caused by low back sprain or extruded intervertebral discs. Backtrac is primarily a home-care system but also is suitable for hospital use.

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In accepting advertising for publication, THE JOURNAL has exercised reasonable precaution to insure that only reputable factual advertisements are included. However, we do not have facilities to make comprehensive or complete investigation, and the claims made by advertisers in behalf of goods, services and medicinal preparations, apparatus or physical appliances are to be regarded as those of the advertisers only. Neither sanction nor endorsement of such is warranted, stated or implied by the association.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral form* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins, i.e., dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs. Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam/Roche), i.e., phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

INJECTABLE: Although promptly controlled, seizures may return; re-administer if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam/Roche) therapy and are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualized for maximum beneficial effect.

ORAL—Adults: Anxiety disorders, relief of symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; acute alcohol withdrawal, 10 mg i.i.d. or q.i.d. in first 24 hours, then 5 mg i.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg i.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg i.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcoholic withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children, administer I.V. slowly; for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levaterenol or metaraminol for hypotension. Dialysis is of limited value. **Supplied:** Tablets, 2 mg, 5 mg and 10 mg, bottles of 100 and 500; Tel-E-Dose® (unit dose) packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10. Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.



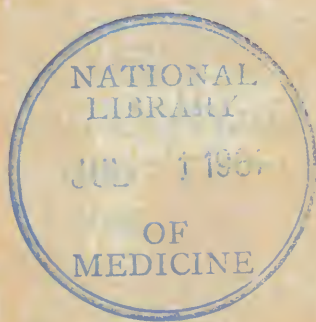
ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse" and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the practice who have been helped through your clinic. Consider your patient's independent prescriptions for me. Consider your patient's problems, G.I. problems and interpersonal problems where my use was severe, have been able to benefit from my use. Recall the you've made. Recall how often you've heard, a don't know what I would have done without me.




You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

931L

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The JOURNAL

of the  **INDIANA**
STATE MEDICAL ASSOCIATION



135 SINGER LANE
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BETHESDA
MD 20209

MULTIPLE SCLEROSIS

About the Cover: See 'Museum Notes'

M.S. — A Continuing Medical Education Article

Feelings vs

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to decrease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgeable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) ®, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

WHAT'S NEW?

NARCO SCIENTIFIC has a new system for observing and monitoring vital signs. The Air-Shields® AS100 StackSystem is a complete system. The basic element records ECG and heart rate, with memory scopes included. When other observations are required, stack-on modules for temperature, respiration, blood pressure and peripheral pulse may be snapped into position atop either base units, the ECG Trendscope or the ECG Triscope.

ELI LILLY AND COMPANY announces that Dis-ta is introducing Cinobac®, a new antibacterial medication for treatment of urinary tract infections. Clinical trial has shown that it is active against a broad spectrum of organisms and has the ability to concentrate at the site of infection. It may be taken twice daily without regard to meals and has a low incidence of side effects.

SYNTEX has FDA approval for expanded indications for Anaprox®. It is now approved for mild to moderately severe, acute or chronic pain, musculoskeletal pain and soft tissue injuries. These are expansions of previous approval for mild to moderate pain and dysmenorrhea.

STUART PHARMACEUTICALS, which markets NOVALDEX® (tamoxifen) for treatment of advanced breast cancer in post-menopausal women, is seeking approval by the FDA to extend indications to include treatment of advanced breast cancer in pre-menopausal women and for treatment of breast cancer in men.

BIOCHEM INTERNATIONAL announces a new fully automated blood pressure monitor. It is non-invasive and operates on the oscillometric technique to measure and record systolic, diastolic, and mean arterial blood pressure as well as pulse rate. It has a built-in printer that provides a permanent record of each reading. Its name is Sensomat BP.

SCHERING has FDA approval to market PRO-VENTID® (albuterol) inhaler, a bronchodilator aerosol used in the treatment of reversible obstructive airway disease, particularly asthma. It will be available on prescription. Albuterol is presently the bronchodilator most widely used for treating asthma in Canada, the United Kingdom, Western Europe and countries in Asia and South America.

CONTINUED ON PAGE 478

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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Sandoz Medical Journalism Award—1976, 1979

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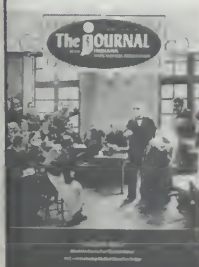
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ABOUT THE COVER

Dr. Jean-Martin Charcot demonstrates a case of hysteria to his students at the neurology clinic in the Salpêtrière, Paris, France. Dr. Babinski of toe reflex fame is supporting the patient. To learn about Dr. Charcot's work in multiple sclerosis, see "Museum Notes."



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EDITORIALS

Rx Drugs Are a Bargain

Professor John Firestone began his calculation of the price inflation of drugs with comparison of the inflation rate of other commodities in 1960. During the 20-year period the size of prescriptions has increased and the Firestone Index is actually constructed on the basis of cost per tablet or cost per ounce of medication.

Drugs have increased in price at a lesser rate than almost all other items in the Consumer Price Index. Even so the latest calculation of the price fluctuations during the past 20 years is surprising. When figured on the same number of doses, the price of drugs has increased by 39.6% since 1960. The "all items" CPI rose 178% and the index for medical care is up by 236%.

Pharmaceuticals are the biggest bargain in town.

Success of the PMA Foundation

The Pharmaceutical Manufacturers Association Foundation was established by the PMA in 1965. The purpose was to promote the betterment of public health through scientific and medical research, with particular reference to the study and development of the science of therapeutics.

The contributors are the PMA member companies and company foundations together with associates in the medical publishing field, and medical and pharmaceutical communications.

The Foundation, in its 16 years existence, has prospered. Its prosperity is related not only to its contributory income, which is substantial, but also to a factor of equal or greater importance, the success of its program.

The main thrust of the Foundation agenda has been in the development of clinical pharmacologists. This important fellowship in research and clinical medicine has been, for a long time, and still is characterized by a shortage of members.

A recent survey by the Association of Medical School Pharmacologists ascertained that medical schools have not organized clinical pharmacology programs because of lack of funds to support such a unit and also because of the inability to recruit clinical pharmacologists.

The Foundation's faculty awards program, which provides funds for beginning faculty and support for clinical pharmacology units, serves to answer these needs. Early on there were programs of fellowships for post-residency study and a medical student program which provides support for a year-long involvement in a research effort. There is evidence now that the latter two programs have outlived their usefulness and will be studied closely to determine how long they may function effectively.

The Foundation has formed four advisory committees, composed of industry scientists, medical and pharmacy school faculty members and other interested scientists. These scholars form the Scientific Advisory Committee, the Clinical Pharmacology Advisory Com-

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mittee, the Pharmacology-Morphology Advisory Committee and the Basic Pharmacology Advisory Committee.

Contributions have multiplied almost three times since 1965 and the grants and fellowships have increased accordingly. The grant program and the scientific seminar schedule are now supported by awards annually in excess of \$1.2 million. In addition to the four pharmacology programs, the Foundation is authorizing a faculty award in toxicologic pathology, aimed at interesting veterinary pathologists and comparative pathologists in drug toxicology research.

Genetic Alteration of Bacteria

Scientists with Biogen, who were the first to produce leukocyte interferon and antigenic proteins of viruses by genetically altering *E. coli*, have now produced the same substances from genetically altered *B. subtilis*.

One advantage of *B. subtilis* over *E. coli* in such a reaction is that *B. subtilis* does not produce pyrogenic endotoxins, is much easier to grow, and is, therefore, of much interest as an alternative organism for producing proteins such as interferon.

Biogen, in conjunction with Schering-Plough, is now well along with leukocyte interferon produced from *E. coli*, and will be in clinical trials later this year.

The same laboratories have genetically engineered strains of *B. subtilis* and have produced antigenic proteins of the viruses causing Hepatitis B and foot-and-mouth disease.

The "sky" seems to be the limit. Genetic alteration of bacteria now appears, not only to be possible for an inconceivable number of purposes, but also to be much safer than was expected in the beginning. The future promises a wealth of protein substances similar to those already known and, who knows, possibly a host of compounds not known today with capabilities never dreamed of before.

Time to Dump FDA Certification?

FDA certification of each batch of all antibiotics was a reasonable and prudent requirement in the early days. However, with the growth and improvement of the technicalities of manufacture, it now appears that the certification program is no longer necessary. Its cost is a major factor, too. In 1979 a total of 14,986 batches were tested—only six were questioned, all for minor or insignificant findings.

The FDA is authorized to exempt antibiotics from certification and is being urged by the pharmaceutical industry to do so. The program is costly for the manufacturers and involves about 190 full-time FDA technicians. Relief from a program that has no cost efficiency whatsoever would save money all around.

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EDITORIALS

Legislation May Restore Patent Terms

Health and Human Services Secretary Richard Schweiker, after consultation with the new commissioner of FDA, Dr. Arthur H. Hayes, Jr., has announced his firm support of proposed legislation that seeks to restore the patent life of a new drug.

At present a new drug entity must be patented as soon as it is reasonably identifiable. This is necessary to protect property rights of its innovator during the extended period of clinical research prior to final FDA approval for marketing.

The time span between patenting and marketing may be several years. This curtails the patent life as defined by present statutes and shortens the monopoly period during which the innovating pharmaceutical company plans to recover research and developmental expenses, which usually add up to many millions of dollars.

The proposed legislation would not change the length of the patent but would define the commencement of the patent monopoly protection as the date on which the patented article or substance is admitted to the market.

The Secretary is quoted as follows: "I will actively advocate within the Administration changes in patent law (patent restoration) to help innovative pharmaceutical companies recover the investment they make in developing new therapies. This will serve to correct disincentives to innovative research . . .

"Changing the patent laws will encourage American drug companies to develop new therapies; it will help maintain America's world leadership in drug research and development . . . The ultimate beneficiary is the public. . . ."

APhA Protests Terms of FDA Approval

The American Pharmaceutical Association recently noted that a press release by A. H. Robins announced FDA approval to market Reglan tablets for gastric stasis secondary to diabetes. The release also stated that the release was contingent on an agreement by the company to conduct post-marketing surveillance and to limit initial distribution through hospital pharmacies.

The APhA has taken notice that the original release of Methadone carried a stipulation for limited distribution—and that the APhA challenged the limiting condition in court and won the verdict. The court stated that the FDA was charged with determining whether the drug was safe when used in the recommended manner and was not authorized to limit distribution.

APhA has notified the FDA that suit will be filed if the distribution condition is not removed. Even though the limited distribution was suggested by the maker, it has been ruled by the FDA as improper.

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Vaginal Uses—Comforting as an adjunct in postoperative care after episiotomies and other vaginal surgery or when relief from vaginal itching, burning or irritation is required.

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Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Dosage and Administration: Anusol-HC Suppositories—

Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories—boxes of 12 (N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

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Store between 59°-86°F (15°-30°C).
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New Agent Orange Study Planned

A team of scientists at the University of California at Los Angeles will design a study by which the Veterans Administration will attempt to determine what, if any, medical effects result from human exposure to Agent Orange, a defoliant used during the fighting in South Vietnam. To date no definite medical link has been established that would substantiate claims of human disease or symptoms due to wartime exposure.

The Truth About Health Care

Three things should now be self-evident, Dr. James S. Todd, a member of the AMA Board of Trustees, told the *Medical Tribune*.

He said: "1) We cannot do all things scientifically possible for everybody everywhere all the time.

"2) We must, or somebody must, decide what we are going to do for whom and where.

"3) We must recognize that health care is only one of the determinants of good health. Health care can expand infinitely and can legitimately absorb every dollar society is willing to make available to it, but at greater expense than the meager improvement in health would justify."

First Aid for the Choking Child

The American Academy of Pediatrics is stressing an educational effort to alert parents to the dangers of infants choking on food or other objects. Choking is the second greatest cause of accidental deaths in the home for children under five years of age. All family members should learn the first aid for this type of emergency. A complete text of the statement, "First Aid for the Choking Child" is published in the May issue of *Pediatrics*.

LETTERS

Research Project Available

I ran a very interesting experiment not long ago, studying the effect of magnetic lines of force on red blood cells and was able to show that there is a marked to moderate effect on the sedimentation rate.

However, I do not have sophisticated equipment nor the time necessary to make this a comprehensive evaluation. If you know of someone who is looking for a good research project that has potential for being valuable in human physiology, please have them correspond with me.

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MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis

THE ILLUSTRATION on the front cover and the photograph on this page are from the Museum, where they have occupied wall space at least since 1900, and probably before. The portrait is that of Jean-Martin Charcot (1825-1893), the first physician in the world to hold a chair of clinical neurology (at the Faculty of Medicine in Paris), and the most celebrated of 19th century French neurologists.

The illustration on the front cover is the classic picture by Brouillet of Charcot in his clinic at the Salpêtrière. It was here that he first distinguished the clinical features of a number of neurological diseases, and made these observations known to physicians around the world, through his writings. Among the diseases for which Charcot provided the first adequate clinical description is multiple sclerosis (1868).

Multiple sclerosis was identified as a pathological entity before it was recognized as a clinical disease (*sclérose en plaques*). Robert Carswell provided illustrations of pathological material in 1838, as did Cruveilhier somewhat later. It was not until the 1860s that Charcot, along with Vulpian, made the initial clinical distinction between the tremors associated with paralysis agitans and multiple sclerosis; and then Charcot further distinguished it from other paralytic disorders, and made clinical correlations with the pathological anatomy (*Gaz. Hôp.* 41, 405, 1868). Charcot's description was so lucid that by 1870 it



Jean-Martin Charcot, M.D.
(1825-1893)

enabled worldwide recognition of this hitherto unknown disease. Actually, Charcot's triad for recognition of the disease—scanning speech, nystagmus, and ataxia—are late manifestations, but at that period of time even late recognition represented significant progress in neurology.

Multiple sclerosis was undoubtedly present in Indiana at this time, but there is no indication (at this writing) that any 19th century Hoosier physician wrote on the subject. In Indianapolis Dr. Isaac Walker and Dr. William Fletcher were recognized as physicians being particularly knowledgeable of neurological diseases. In Evansville Dr. George Walker had a similar reputation, as did Dr. Edward Wells

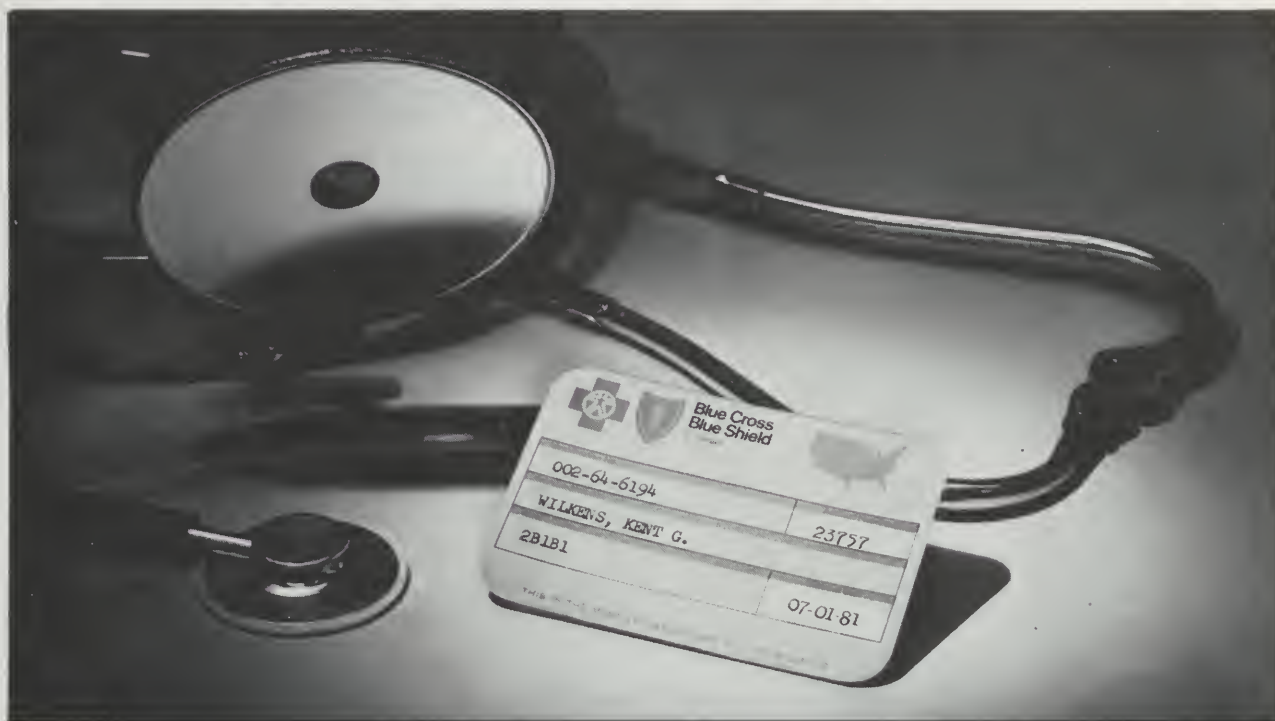
of Shelbyville and Dr. George McCaskey of Fort Wayne (who started his own medical journal—*McCaskey's Clinical Studies*—which in 1881 became the *Fort Wayne Journal of Medical Sciences*). All made contributions to the *Transactions* of the Indiana State Medical Society, but none on the subject of multiple sclerosis.

In more recent years the early signs and symptoms of multiple sclerosis have become more readily recognized; and the disease that at one time was considered quite rare is now unfortunately known to be the most common crippling neurological disease of young adults. It is common enough that many physicians may have one or two patients in their practice, but sufficiently uncommon that very few physicians are able to gain extensive experience with the numerous problems posed by the disease. One such Indiana physician, however, is Professor Oldrich Kolar.

Since 1956 IUMC has had a multiple sclerosis clinic. This clinic is under the direction of Dr. Kolar, who had his specialized neurological training in Czechoslovakia. It is Dr. Kolar's extensive experience in IUMC's multiple sclerosis clinic that provides the basis of this month's CME study, a study which brings the reader to the current frontier of knowledge of this most unusual disease—a disease whose recognition began with Charcot and the Salpêtrière, and whose final chapter is yet to be written.

In This Issue: Multiple Sclerosis
A Continuing Medical Education Article
By Oldrich J. Kolar, M.D.
Begins on Page 434

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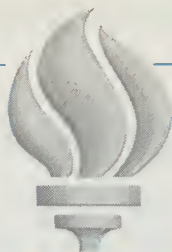
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Toward Repealing NHPA: How You Can Help

An AMA-supported bill to repeal the National Health Planning Act (PL 93-641) was introduced May 21 by Congressman Richard Shelby (Ala.), a Democratic member of the House Energy and Commerce Committee's Subcommittee on Health. The bill is co-sponsored by Representative Phil Gramm (D-Tex.).

In its "Legislative Alert" of May 22, the AMA said repeal of the Act "is absolutely necessary to end federal interference in local planning decisions."

The AMA has opposed PL 93-641 since its enactment and is committed to its repeal for several reasons:

- It has imposed federal regulations upon what should be primarily locally directed health planning.
- In exercising its control, the federal government has targeted short-term cost-containment objectives rather than planning for local health needs.
- The planning program is not "cost effective."

...tive."

- The program is anti-competitive, creating barriers to market entry through burdensome certificate-of-need and other approval requirements.

- The law and regulations are highly complex, resulting in an excessive amount of time and resources being devoted to red tape instead of to delivery of care.

What can you do as a physician to help? The AMA recommends that you contact your Congressman and ask him or her to contact Congressman Shelby's office to co-sponsor HR 3666, which will repeal the federal health planning law. You should ask your Congressman to contact members of the House Energy and Commerce Committee, asking them to support HR 3666.

Finally, the AMA's Washington office would like you to let them know about the contacts you have made and the response you received. (1776 K Street, NW, Washington, D.C. 20006. Tel: (202) 857-1300).



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The Physician and Hospital Cost Containment

Guest Editorial

HUNTER A. SOPER, M.D.
Indianapolis

ARTICLES IN THE NON-MEDICAL press and current books by economists¹ are telling us we need to reduce consumption so we can invest more to modernize industry and that we need to put big taxes on gasoline to cut its use now and provide alternate energy later. These measures will lower personal income and the standard of living of all of us. No one, understandably, wants to volunteer. Most of us understand that if we spend more than we take in we will end up bankrupt and that a stagnant economy is like an apple pie—it is only so big and if someone gets a bigger piece, someone else must have less. Our political leaders, however, pretend that no one has to lose.

The medical scene is certainly a microcosm of these larger societal problems. After several decades of unprecedented prosperity fueled by seemingly unlimited funds provided by third-party payers and the federal subsidy of everything from basic research to primary health care delivery systems, the prodigal son is just beginning to realize the party is over. Because the costs of hospital care have risen far more rapidly than the rate of inflation during the past 15 years, the hospital industry in the United States has been subjected to escalated regulatory efforts and a multitude of political nostrums designed to contain costs.

My experience as president of the medical staff organization of the twelfth largest private hospital

in the United States convinces me that hospitals and doctors are not anxious to volunteer to lower our standard of living. Just as a Republican President was in a better position to open the dialogue between our country and mainland China, physician leaders in our hospitals can more appropriately assume the responsibility for protecting and allocating the finite medical commons as proposed by Dr. Howard Hiatt,² for being sure their hospital budget stays within the guidelines of the voluntary effort, and for making their fellow medical staff members aware of the scarcity of resources and the problems in meeting a balanced budget. Physicians determine how much the hospital is used and exert enormous power in allocating resources and we must protect the goose that lays the golden eggs.

It was a real shock to participate in the budget-making for fiscal year 1982 for the Methodist Hospital of Indiana, Inc. after working for three months in the summer of 1980 at the Methodist Hospital located in Mathura, U.P., India.

Radiology desired almost \$2 million of new equipment that would pay for itself in a short time. I thought of the one portable 20 milliamp machine that provided all the x-rays for that 200-bed hospital in India and the countless humans in the world who live and die without ever benefiting from Wilhelm Roentgen's marvelous rays.

Pathology desired over \$.5 million of equipment and \$100,000 to get computerized for survival in the 1980s and I thought of the few dozen tests that helped our mission hospital out-perform the local government-sponsored health facilities.

We struggled with the Christmas wish list of hospital administrators and staff physicians that is

CONTINUED ON PAGE 429

The author, an internist, is a staff member of Meridian Medical Group, 3130 N. Meridian St., Indianapolis, Ind. 46208.



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DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Hastening Healing

Guest Editorial

POSITIVE RESULTS of the surgery on Pope John Paul, like those earlier of the surgery on President Ronald Reagan, owe much to infection-fighting antibiotics.

No one knows how many lives have been saved by the constellation of wonder drugs discovered in recent decades.

Dramatically, new drugs keep offering blessed alternatives to grim old treatments: Tagamet instead of ulcer surgery, rifampin instead of a tuberculosis sanitarium and anti-psychotic medicines instead of the mental ward, to name a few.

But today introduction of new drugs in this country is being slowed by a thicket of governmental complications that discourage investment in research and drive up many drug prices and health care costs in general.

Many companies that accomplished past breakthroughs are cutting back on research or quitting the business. During 1954-58, 51 independent firms introduced at least one new drug. During 1972-76, that number fell about 19% to 40.5 firms.

Reprinted by permission from *The Indianapolis Star*, May 17, 1981.

Present patent policy hampers drug development.

When a firm discovers a new compound, it must file at once for a patent. Research and development costs a company an average of \$70 million per new product entering the market. But before the product can be sold, the firm must go through an involved approval process taking an average of seven to 10 years.

By the time the new product enters the market, less than half its original 17-year patent life is left.

The negative effect this has on research and new product development hurts the public as well as the drug industry. In 1960 a \$3.5 billion pharmaceutical industry with effective 16-year patent lives introduced 50 new medicines. In 1980 a \$22 billion industry with effective patent lives of less than 10 years introduced only 10 new medicines.

A thorough, conscientious approval process is essential. But so is a restoration of incentive to develop and market new medicines.

Legislation pending in Congress—H.R. 1937—would restore to patent owners up to seven years of patent life lost due to government requirements which must be met before a product can be marketed.

We think that would help restore needed incentives to the pharmaceutical industry, encourage research and increase the number of new drugs introduced.

This in turn could restore to health and save the lives of untold numbers of persons, as has the array of wonder drugs introduced during the peak period of research and development.

Family M.D. Not Liable for Acts of Surgeon

Court Action

A patient's family physician and a surgeon are not jointly liable for injuries suffered by the patient; an Indiana appellate court has ruled.

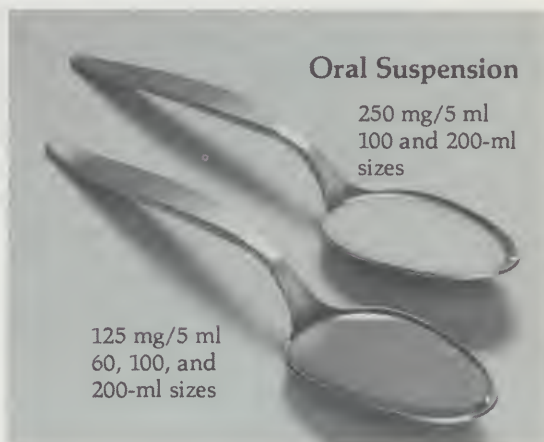
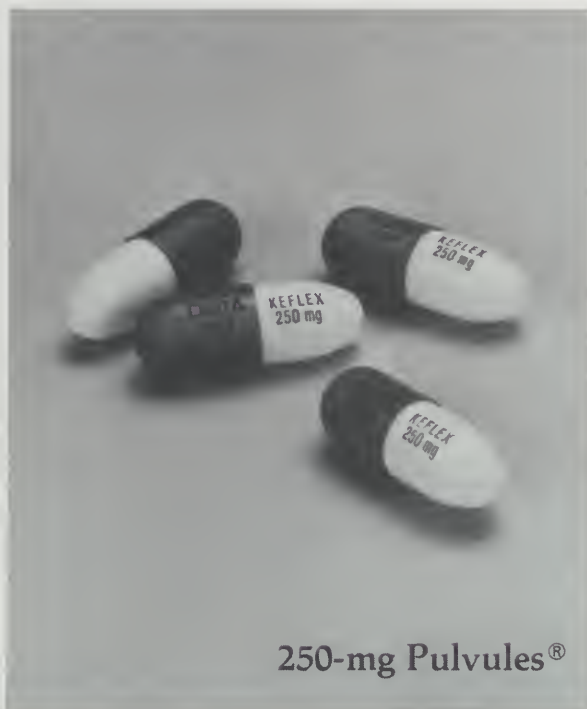
The family physician recommended that the patient have surgery for a gallbladder condition. The surgeon performed the operation with the assistance of the family physician. During the operation a penrose drain was inserted in the patient's abdomen to expedite draining into the dressing. The drain was to be removed by the surgeon four or five days after the surgery. The drain was not removed then and remained in the patient's abdomen for five years. The patient filed a malpractice action against the family physician.

Courtesy of *The Citation*, April 1, 1981.

A jury found in favor of the physician, and the patient appealed.

Affirming the decision, the appellate court said that the evidence did not warrant a jury instruction on a joint venture between the two physicians. The court instructed the jury that the family physician was not responsible for the acts or omissions of the surgeon. There was a notation on the patient's hospital chart on the sixth day after surgery that "All sutures plus drain out." It was signed by the surgeon. The family physician assisted the surgeon, who was responsible for managing the drain site, and it appeared clear that if there was any negligence, it was solely on the part of the surgeon, the court said. — *Watts v. Jankowski*, 411 N.E.2d 678 (Ind.Ct. of App., Oct. 28, 1980)

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School Funding Blowup Is Vastly Inflated

Commentary

JOHN W. WALLS
President
Indiana Chamber of Commerce

FAILURE OF THE LEGISLATORS to enact a new state school aid plan is being depicted as the end of the world. Governor Orr is being assailed for "lack of leadership," and the Republican majorities in the Indiana House and Senate are taking a merciless beating from sundry directions.

Poppycock. Of course the legislature must pass a school formula, and of course it should have done so within its regular session limits. A special session will now be needed to finish this part of the public's business.

But to suggest that a month's delay in enacting a school formula means that public school Armageddon is around the corner shows a bad case of inflammation of the public rhetoric. Laws now on the books will keep state funds flowing through Dec. 31, so there will be no interruption of the billion-dollar state aid package to local schools.

Nevertheless, the legislators did not complete their duties on time, and we should look for reasons. Here are some of the factors involved:

1. Designing and passing a school aid plan is never easy in the rosier of times. Indiana has 304 school corporations, each with a unique blend of students, programs, faculty ratios and wealth. Treating schools equitably statewide requires an arcane exercise in computer wizardry. The few state agencies fortunate enough to have computer people who can "run a school formula" guard their prizes with the covetous affection of Fagin for his young pickpockets.

Note: This article was prepared for publication in early May, before the special session of the Indiana Legislature was called.

2. Times are *not* rosy. State government income is still feeling recession effects and is forecast to make only a modest comeback. Governor Orr—properly so—resolved that no general state tax increases would be appropriate until we see the strength of the economic recovery and the magnitude of federal budget cuts. Increasing state taxes would have made it easier to pass a school bill, but it would not have been wise policy.

3. Demanding too much increase for teachers played a role, too. By the State Chamber's calculation, an infusion of \$66 million into the school formula would have treated public education equally with other recipients of state funds, even without taking into account continuously declining school enrollments.

Few people are aware that the \$82 million increase in the final school package, which the House voted down April 30 under heavy pressure from the Indiana State Teachers Association, was *nearly 25% more* than even-handed treatment would have required. Even so, the State House was flooded with school teachers demanding defeat of the measure on the grounds that this disproportionately good treatment was not disproportionately good enough.

Sighed one legislator, "We could give them 100% of the state budget and all we'd hear would be 'More!'"

Somehow the impression is being given that all the 1981 General Assembly did was fiddle-diddle in the State House for 61 days. That's not true. They struggled to pass a school bill, an inherently difficult job, under severe handicaps—with little state money and facing intractable lobby groups. That they came as close as they did is more surprising than that they failed.

We'll see them back in Indianapolis for one day on May 27, when they are expected to pass a school funding bill. The State Chamber is throwing its full resources behind the compromise measure negotiated May 13.

Once that's done, we'll find that the school blowup was overblown.

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EQUAGESIC—Abbreviated Summary

INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective, for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery. Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Meclazol, or amphet-

amine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and institution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardialopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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The Average Woman and the Eternal Female

GLEANINGS FROM RETIREMENT

ALEXANDER W. CAVINS, M.D.
Terre Haute

HAVING BEEN retired since 1976, I read a good deal and dabble in various subjects, including anthropology. One of my friends (of whom I am very proud) is a professor of this subject at a nearby university and from him I had a reference to peruse: "Male and Female—Why?" by Jo Durden-Smith, published in *Quest/80*, reporting on modern research on human brain structure and functional organization (in several different research centers) to compare women with men. Lo, and behold, it begins to look as if there are physical differences between male and female brains corresponding to psychological differences already well known. Apparently, organized search for the Eternal Feminine is well underway.

But there is another approach, one example of which, through literature, seems to me very helpful. Even in retirement a gynecologist thinks about women—and their troubles. Their troubles include their husbands, because their husbands are convinced that their wives don't understand them. (For

a convincing essay on this, see "Jurgen" by James Branch Cabell.)

Consider, in regard to this, the *average* man and the *average* woman, because there are some instances of women showing a masculine trend in thinking and a few men the other way 'round. Statisticians love to play with averages and even to use them in argument yet they will admit there is no such thing as individual average man or average woman—you cannot point one out in any given population. But if you are ever sufficiently nimble to back a statistician into a corner, you can prove to him that at one time in a certain population there was an average man and an average woman—average for that time and place: two definite individuals.

So? Well, it is quite simple. These two people were Adam and Eve in the Garden of Eden, and there can be no question that Adam *was* the average man and that Eve *was* the average woman at that time and in that place. Furthermore, one important aspect of the psychological difference between them is illustrated by an incident well known in American literature which occurred in the course of their daily routine.

As you will remember, according to Mark Twain, a great student of such things, Adam had an onerous task, even before the Fall, and that was to name all the animals. A few days after he had begun to do this and before he had gotten used to the routine, he flopped down near where Eve was preparing early supper and remarked on how exhausted he was after thinking up names for myriads of animals—all day long.

"Eve, you've no idea how my mind is whirling full of animals, animals, animals—Oh, no, there goes another one I haven't seen before. What in the world can it be?"

Eve turned quickly and saw a graceful small quadruped—furry, and waving a long tail.

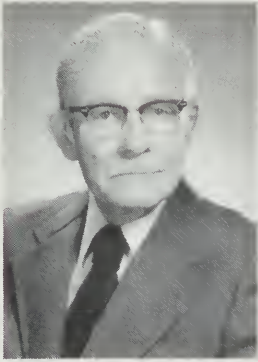
"Why, that's a cat!" she snapped and turned back to her cooking.

Adam was silent for quite awhile, but finally he said, "Eve, dear, how did you know that was a cat?"

"Well, I never!" said Eve. "How do you *suppose* I knew? It *looked* like a cat!"

The Eternal Feminine? Yes. Exceptions to the rule cannot be considered eternal, but the average can go on and on and on. Therefore, the average woman, Eve, was and is the Eternal Feminine.

The author, a retired gynecologist, is the senior consulting editor of *THE JOURNAL*.



Frank B. Ramsey, M.D.
Editor
The Journal

DR. FRANK RAMSEY has been editor of **THE JOURNAL** 33 years. He has had only two predecessors—Dr. Albert E. Bulson, Jr. of Fort Wayne, the magazine's creator and first editor (1908-1932), and Dr. Eldridge M. Shanklin of Hammond (1933-1948).

Dr. Ramsey, a 1927 graduate of Indiana University School of Medicine, is a retired general surgeon. After completing his internship, he served as resident in surgery at the Long Hospital and spent two years as a Fellow in Surgery at the Lahey Clinic, Boston. He later was engaged in the full-time practice of general surgery in Indianapolis and was an associate professor of surgery at the I.U. School of Medicine.

He is a Fellow of the American College of Surgeons, a diplomate of the American Board of Surgery, and a Fellow of the American Medical Writers Association. He is a senior member of the American Goiter Association and an affiliate of the Royal Society of Medicine.

During World War II, Dr. Ramsey served as division surgeon with the Army's 38th Division, seeing action at New Guinea, Leyte and Luzon. For meritorious service he was awarded the Legion of Merit and the Bronze Star Medal. Discharged in 1946 with the rank of colonel, he continued his Army association as a consultant in surgery for the Second Army area, and regularly visited Army hospitals in Indiana and Kentucky.

Dr. Ramsey has been called a quiet, studious man—an inveterate reader of medical, scientific and historical literature. He is these things—and a brilliant conversationalist—but he also loves the outdoors, spending considerable time gardening and chopping wood. Both he and his wife Mildred enjoy traveling, often taking lengthy walking tours during their out-of-town jaunts.

To Dr. Ramsey, "retired" means only that he no longer practices surgery. He remains active in the medical community through daily personal contacts—and as a member of the Board of Managers of the Marion County Home. For several years, he has been president of the State Medical Journal Advertising Bureau, which has headquarters in Oak Park, Illinois.

Meet Your ISMA Staff

Martin T. Badger
Managing Editor
The Journal



MARTIN BADGER joined the Association in late 1977 and has been managing editor of **THE JOURNAL** since then. He describes his ISMA job as his "second career."

Martin, a native of Mishawaka, Ind., is a retired Army master sergeant who spent his military years—10 of them overseas, including Vietnam service—in various editorial capacities with newspapers and magazines; he also served four years with the Defense Information School as an applied journalism instructor. Among his military awards, based on journalism assignments, are the Bronze Star Medal, Meritorious Service Medal, Joint Service Commendation Medal and the Army Commendation Medal.

As managing editor, he coordinates advertising and circulation, writes, copyedits, and handles the mechanical aspects of production—pre-press copy preparation, proofreading, type selection, and photo cropping and scaling. He designs each issue and lays out "dummy" pages which serve as "blueprints" for the camera-ready paste-up, performed by the Gibbs-Inman Company of Louisville.

Martin and his wife Cheryl live in the Indianapolis area with their daughter and four sons.

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'The Pen Is Mightier Than the Sword': Some Dangers of Script Writing

A Report of the Commission on Physician Impairment

GERALD P. JOHNSTON, M.D.
Indianapolis

"BENEATH THE RULE of men entirely great the pen is mightier than the sword." This quotation from an 1839 British play is appropriate to sum up many of the problems seen in physicians referred to the Indiana State Medical Association's Commission on Physician Impairment. We treat many more human ills with pills than with scalpels, and, in our enthusiasm to cure and relieve suffering, we do not always take proper precautions in regard to prescribing certain drugs and chemicals, especially for ourselves, families, colleagues and friends.

During the first three years of operation more than 100 physicians have been referred to the Commission on Physician Impairment, and most (over 80%) have been successfully referred for treatment. Analysis of 50 of these cases reveals that problems include:

- Mixed alcohol and drug abuse—24%,
- Alcoholism—22%,
- Other drug abuse—18%,

- Over prescription—12%,
- Depression—6%,
- Manic-depressive—4%,
- Senility—6%,
- Psychosis—4%,
- Other—4%.

This analysis indicates that 76% of the problems referred were related to abuse of alcohol and drugs or to prescribing practices, especially self-prescription. The majority of physicians with alcohol problems were also found to be dependent upon other drugs. If abuse of alcohol is included as a type of self-prescription (many of the physicians dependent on alcohol were using it as an attempt to relieve anxiety and depression) more than 75% of referrals would be related to prescribing practices. If primary alcoholism without drug dependence is excluded, more than 50% of referrals would still be related to problems related to prescribing practices.

The following specific problems were brought to the attention of the Commission on Physician Impairment:

1. Self prescription and abuse of addicting drugs were involved in more than 40% of referrals. A previous paper* on self-prescription

outlines in more detail the problems and dangers often related to self-prescription.

2. Prescription for family members also led to some serious problems, especially in addicted doctors who had provided addicting drugs to their spouses. This occurred in more than 20% of doctors who were dependent on controlled drugs themselves.

3. Casual prescription for friends and associates was more common among doctors who had become dependent on alcohol and drugs themselves. A few doctors came to the attention of the Commission on Physician Impairment primarily because of repeated overdoses of family members or of patients with whom they had a close relationship.

4. Over-prescription of controlled drugs was more common in doctors with alcohol and drug dependency and was the primary problem in 12% of referrals. Several doctors came to the attention of the Commission after they had been identified by drug abusers in the community as "candy men" (doctors who provide most any drug that a person asks for).

5. Polypharmacy or prescription of numerous, often duplicate, drugs was more common among physicians referred with alcohol and drug problems.

6. Carelessness with prescription blanks and diversion of controlled

The author is chairman of the Indiana State Medical Association's Commission on Physician Impairment.

A copy of the references pertaining to this report may be obtained by writing THE JOURNAL, 3935 N. Meridian St., Indianapolis, Ind. 46208.

*Johnston GP: Case history: Dangers of self-prescription. *J Indiana State Med Assoc*, 72:8, 570-572, August 1979.

drugs, also a problem brought to the attention of the Commission, usually was not associated with other impairment.

The above prescribing problems have had significant adverse impact on medical practice. The most serious impact has been the loss of several competent and well-trained physicians due to alcohol, drug abuse and suicide. Such prescribing practices also reduce the overall effectiveness of medical practice and lead to increased costs of medical care and professional liability insurance. They have resulted in adverse public relations and possibly in public loss of confidence in physicians. There also has been an increase in incidence of addiction not only in physicians themselves but in patients or others who have become

dependent on drugs due to prescribing practices. In addition, there have been very serious effects on families, office staff, and occasionally on patients.

The following guidelines are offered as ways to avoid some of the dangers of script writing:

- Avoid self-prescription, especially of controlled drugs.
- Avoid prescription of controlled drugs for family members, including stimulants and minor tranquilizers.
- Evaluate carefully the need for any controlled drugs for patients.
- When controlled drugs are considered necessary, prescribe only in small amounts, for the shortest possible time, with no or limited refills, and with close supervision.

• Know your patients—have complete identification and do complete alcohol and drug histories before prescribing any controlled drugs.

• Use extreme caution in prescribing for patients with a history of alcohol and drug abuse.

• Avoid polypharmacy—especially multiple symptomatic medications.

• Use proper precaution with prescription blanks and avoid diversion of prescribed controlled drugs.

If the above guidelines had been followed by physicians referred to the Commission of Physician Impairment, it is estimated that more than 50% of these doctors would have avoided serious complications in their lives and extreme adverse effects on their medical practice.

The Physician and Hospital Cost Containment

CONTINUED FROM PAGE 418

labeled as the Movable Equipment Budget and laboriously pared it from \$5 million to \$4 million. Several new programs wanted just two or three nurses when we cannot even keep all our beds open because of a lack of enough nurses to meet minimum patient care requirements. One service wanted wall-mounted sphygmomanometers in each room while the mission hospital had to make-do with three blood pressure cuffs for the whole hospital.

Leaders of non-competitive industries in our country and our political leaders have just about run out of excuses and out of room to maneuver. They will have to make some choices and decisions that will be unpopular but necessary for survival in the 1980s. Medical leadership at the precinct level resides in our hospitals and we, too, are faced with difficult and unpopular choices and decisions. At our hospital we had to scuttle a well planned research commitment designed to demonstrate that heart transplants could be done in a cost-effective way at a private hospital. Several years of work and planning by our cardiologists and cardiovascular surgeons went for naught and

they are, justifiably, unhappy. The decision is correct for 1980, but how will it look in 1985?

Medicine had better get busy developing leadership with administrative ability and a cadre of physicians educated to help us survive in the new health care market. This can be done as a conscious career orientation by young physicians or as a mid-career change by older physicians who find they have a skill and interest in administrative matters. The practicing physician who is interested in seeing that his patients are in a well run hospital can learn administrative expertise by the "seat of the pants" method coming up through leadership roles in various committees and offices. But, he can only function well if hospital administration provides him with adequate staff support and if there is a spirit of constructive teamwork between the medical staff and hospital administration. One of the main responsibilities of the Board of Trustees is to be sure that this climate prevails in their hospital.

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The Recruiting Process in a Medical Office

Medical Practice Management

LEIF C. BECK, LL.B.
VASILIOS J. KALOGREDIS, J.D.
GEOFFREY T. ANDERS, J.D.

A RECURRENT THEME arising from our surveys of medical practices is the need for orderly recruiting and hiring of lay employees. If conscientiously approached, there is little real excuse or reason for less than a competent, personable staff.

Despite obvious benefits, no other one element of personnel management is given such short shrift as the initial processes involved in hiring. Too often the recruiting process is a haphazard effort turning up just a few applicants and perhaps selecting the "best" of a bad lot.

There should be a specific, pre-arranged routine for employing any new assistant, and shortcutting the process should be avoided no matter how promising an applicant looks on first impression. Once developed, the routine should be set down in writing to guide future hiring searches so that "re-inventing the wheel" each time becomes unnecessary.

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Creating a Pool of Applicants

The first step in any formatted routine must involve the "where to look" question. While the specific answer will vary from place to place, generally the best answer is to try all available approaches. One never knows where a "superstar" may turn up and, by creating the largest pool of possibilities, chances of finding the right person are increased.

Placing ads in weekly and daily area newspapers is one obvious step. There are, however, great variations in want ad success levels depending on how those ads are drafted. A few simple steps can dramatically improve the number of responses received.

The ad must be visually eye-catching. That is easily enough accomplished by making the ad larger than minimum size, placing a border around the ad or similar measures. While costing a little more, such announcements more than pay their way by improving chances that the ideal employee will respond.

The practice should be described in appealing terms so that the reader will want to find out more. A busy, growing family practice can describe itself as such. An office taking pride in its level of employee morale can say so. Almost any reader comparing such an ad against the usual "med. sec.-exp. nec." is far more likely to respond.

Third, the job opening should be described broadly to encourage inquiries. Remember that you are trying to create the largest pool possible and not screen out any

possible applicant at this point. For example, the words "secretary in medical office" are better than simply "medical secretary" since the latter term implies some special pre-existing skill. Most good secretaries can adapt easily to the medical practice aspects in only a short time on the job if they have the other desirable qualities.

Lastly, an ad should refrain from quoting any salary. Unless a practice follows prescribed salary classifications or job grades, pay levels should be kept flexible. The practice should be more than willing to pay whatever is within reason to attract the best employee. Losing a top-flight person for an extra \$5 per week is a very false economy.

Employment agencies, junior colleges and medical assistant schools are other potential sources of applicants. However, despite claims to the contrary, many of these sources fail to screen applicants before recommending them. Thus, the persons sent out often seem ill-suited for the position. With that in mind, it is essential that all applicants, regardless of source, be screened as extensively as any other applicant.

The sometimes successful source of "piracy"—offering employment to a person already employed at a local hospital or at another medical office—is equally often a mistake. Doctors often conclude that aides they occasionally see would be ideal for their private office. Unfortunately, many of those persons turn out to be entirely inadequate for the job change. Here again it is essential that *all* applicants be test-

ed in the same fashion as newspaper ad applicants and others. A little personal knowledge of the applicant in these situations is too often a dangerous thing.

Screening Applicants

There is some dispute among consultants whether it is best to initially screen applicants by telephone or by reviewing resumes. Each has its advantages and although we prefer using the telephone we cannot really find fault with the resume process.

Telephone screening gives the doctor or office manager the opportunity to "test" an applicant's ability to handle telephone conversations. That obviously cannot be accomplished by looking at a resume. Very often we also find the telephone screening easier to handle since it may be scheduled at the doctor's or office manager's convenience and accomplished faster than reading resumes. On the other hand, the resume process may be performed at leisure and not during regular practice hours. Furthermore, having resumes mailed to a post office box conceals the identity of the prospective employer, which may be desirable in some circumstances.

Assuming that the telephone screening route is followed, the person handling the screening process should have a specific list of questions to be asked. And a checklist should be ready, at least mentally, by which to decide whether to invite the applicant to the office for an interview.

Having the screening and many of the later functions handled by aides is important for several reasons. First, of course, the doctors in the office should be spared administrative details as a matter of time and efficiency. Presumably, there are more vital demands on their time than the initial screening routine.

Equally important with the cost effective use of doctor time, however, is the need to involve existing employees in the hiring process. Quite simply the present office staff has much more at stake in the selection process than do the doctors. Other staff will have to work closely with a new employee, making the personality "mesh" more important than the initial technical skills. The aide actually hired will probably be most valuable if she is well accepted by the rest of the staff, and involvement in the initial hiring process most often allows that to happen.

Initial Interviews

Those persons selected to come into the office for an initial interview should be scheduled to meet with one or more of the staff and preferably not with the doctors. This is an extension of the same two principles described above: saving doctor time and involving the staff.

While the office manager or senior assistant who did the telephone screening should conduct the interview, we would urge that other staff be brought in as well. This has the advantage of letting more of the aides evaluate the applicant from a personality standpoint. But similarly it offers the applicant a better feeling of the office environment, which hopefully will impress her enough to want the job.

Any initial interview should begin by having the applicant fill out an employment application. A pre-printed form including both specific, routine questions (personal history, job history, health history, education, etc.), as well as more general questions, should be used. This preliminary information gives the interviewer good leads for further questions and items of discussion during the interview. Since we particularly urge checking references

with prior employers, the form should specifically inquire as to why the applicant left prior jobs, what was liked or disliked about them and the applicant's salary history. Comparing these responses to the prior employer's own views is a test of the applicant's honesty as well as her employment history.

Regardless of the form used or questions asked, the applicants should be required to complete the form in their own handwriting. The reason is simply that paperwork neatness and legibility should be desired qualities among any staff person. A receptionist will, for example, have to fill in the appointment book carefully despite many distractions. An insurance clerk may complete some forms and reports by hand when it is most convenient. A clinical assistant might record information on procedures and that report will become part of the medical record. Sloppy handwriting can certainly hamper the effectiveness of all of these employees' work and thus should be tested during the recruiting process.

Another question that should appear on the application form is the person's salary expectation. No more than a broad salary range should be stated in reply to the applicant's direct question (perhaps over the phone) so that a proposed salary figure would have first been specified by the applicant (on the form) rather than by the employer. This has obvious advantages.

The interview itself should be a two-way matter. The senior aide(s) should seek to learn the applicant's experiences that might qualify her for the job in question and also ask general questions merely to develop a feeling for the applicant as a person. At the same time, the applicant should be encouraged to inquire about the job, the hours, working conditions and characteristics, the nature of the practice and

so forth. The applicant is as much evaluating the job as the practice personnel are evaluating the applicant.

Skill Testing

We are often surprised that applicants claim much greater skills than they actually can demonstrate. For example, an applicant who responds that she types at 70 w.p.m. might turn out to be much slower. Or she might type that fast only at the expense of neatness and accuracy. Similarly, there seem to be a multitude of "experienced" bookkeepers who have difficulty balancing a simple one-page check register. Once hired, dealing with lesser capabilities can be difficult, and the office may find itself stuck with a marginally satisfactory employee. One way to avoid such disappointments is to see for one's self what the applicant's skills really are.

Thus we recommend that a practice's hiring procedure call for skill testing whenever possible. Typing capabilities merely require a simple five-minute dictated tape (reasonably free of unique practice terminology) to be transcribed or a one-page letter to be typed as copywork. Bookkeeping, receptionist and medical assistance jobs require greater ingenuity in the design of "homemade" skill tests. Still they usually can be designed with some degree of usefulness, and one good approach is to ask the present staff to develop such tests themselves.

A further extension of the skill-testing idea is to present an applicant with short "word problem" situations requiring her to respond as to how she would handle a particular situation. While there are really no "right" answers, the interviewer might get some insight into the applicant's common sense and decision-making abilities.

Skill-testing in general serves two important hiring functions. First, it obviously helps assure the practice

that employees have the basic level of competence required for their jobs. Secondly, the tests help determine whether an applicant is reliable. One who exaggerates his or her own measurable job capabilities generally is not a very desirable employee. For both of these reasons, the skill test is a very simple device of great potential personnel value.

Physician Interview

After a number of initial applicants have been screened, tested and interviewed by the responsible aides, the doctor (or the managing doctor of a group practice) should meet with those aides for a review session. The staff would then openly report that they recommend a few persons for a follow-up interview with the doctor. While the doctor may properly inquire into the rejected applicants and the reasons for the aides' decisions, only in rare instances should he overrule them. The aides do have to work with any newly hired employee even more closely than does the doctor.

Although the second interview should be primarily conducted by the physician, it also should be open to attendance by the other staff. At least one or two aides who did the earlier work should attend. There is nothing to hide in the interview, and giving the staff a second look at a prospective applicant may be much more revealing than any first-time interview.

A variety of subjects need be covered in this doctor interview. On the one hand, the doctor should draw the applicant into discussion about her suitability for the position. Particular attention should be paid to an applicant's descriptions of previous employers, what was liked or disliked about the jobs and why those positions were left. These comments can be compared to the applicant's answers on the application form and to comments

obtained during the reference-checking routine.

On the other hand, the doctor must be sure that the job and all personnel policies are well described to the applicant and that all questions are answered. This would include stating an initial salary offer, which has been decided upon in advance. However, no actual job offer should be made during this interview. Rather, the details should be discussed to determine if they would probably be acceptable if the applicant is finally chosen.

We think that this rule should be followed even if only one applicant seems clearly to stand out as the "perfect choice." Courtesy and continued involvement of the aides demand that the doctor review the decision with them, thus attempting to make the decision a joint one. And even if the aides disagree and the doctor's preference prevails, they will at least have the satisfaction of knowing that their opinions were sought and considered. In any event, no person should be hired until references have been checked, and that best takes place after the doctor interview.

Reference Check

It should be an absolute rule that an applicant will not be hired without checking references; at least her immediate prior employer and often the one before that should be contacted. This check should be made by telephone (never by mail) and we usually find that a "peer-to-peer" telephone call works best. If the person named as the prior supervisor is a doctor or executive, the doctor should make the inquiry. If the person listed instead is another practice's office manager or the near equivalent, the office manager should call. With this process the individual called tends to be a bit more candid, perhaps a little less guarded, when the caller is at or

near his or her professional level. And the reasons for telephone checking should be obvious. A previous or current employer is often and understandably unwilling to state something unfavorable in writing. And by telephone, the reference checker can detect hesitations, inflections and the like which should lead him to explore those responses further.

A list of specific questions should be on hand for conducting the reference check. Such questions might include the following: What were the person's jobs and duties? Were those duties performed at a satisfactory level? How were her work habits? Was absenteeism a problem? Did this person handle money? What did she do best and worst? What was her final salary? Why did she leave your employ? Would the

employer rehire her? Additionally, questions to be compared to the responses on the applicant's employment application should be pursued. Any answer not wholly satisfactory should, of course, be followed up by additional questions.

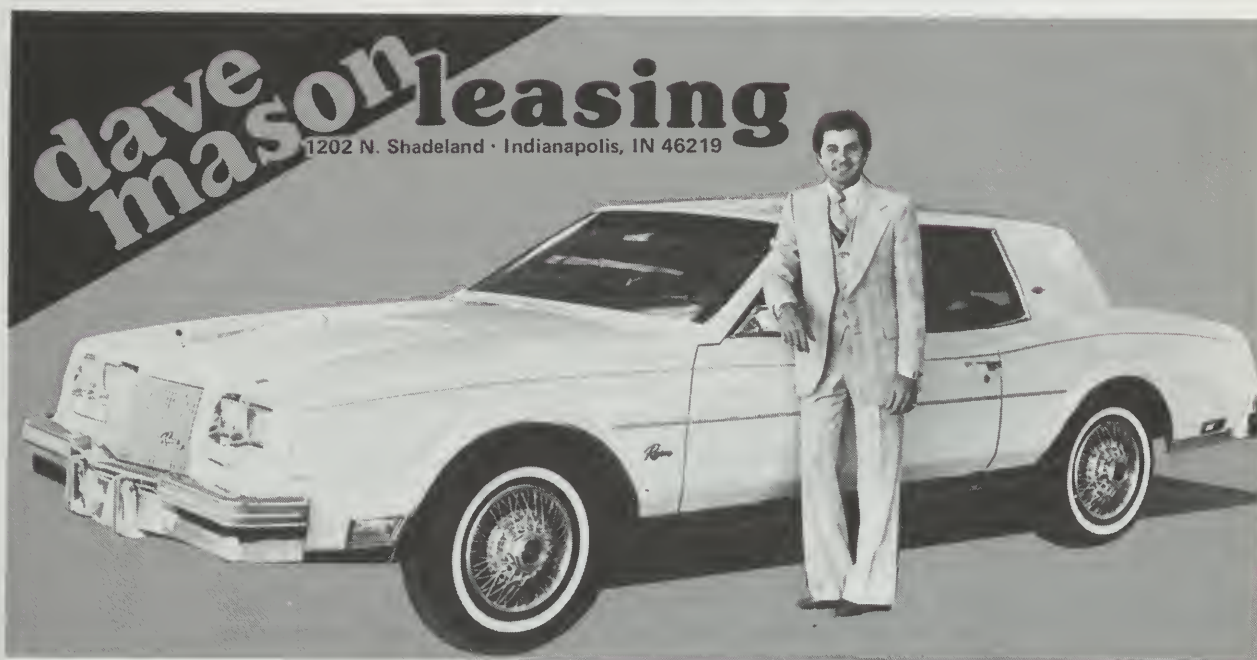
While the reference check will not necessarily guarantee a successful employee decision, it is the one chance to get some advance idea of how an applicant might actually perform and inter-relate with other people. The call rarely will take more than a couple of minutes, but the value of reducing the chances of making a hiring mistake is tremendous.

Conclusion

If the reference check on the selected person has been satisfactory, the applicant should be offered the

job on the terms discussed at the second interview. Assuming it is accepted, the other "finalist" applicants should be notified with thanks. Their information should, however, be kept on file since the fairness of this interview process might well have branded one or more of them as excellent candidates if another job should open up in your office.

While the entire process might appear time-consuming for a small medical practice, it is time well spent. The physician-time, however, should be kept to a minimum despite the thoroughness of the effort. And the theme during the hiring routine should have been on staff involvement to emphasize that a compatible group of employees are most likely to create the best office.



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To obtain Category 1 credit for this month's article, complete the quiz on Page 459.



Multiple Sclerosis

ABSTRACT

Current concepts of pathogenesis, diagnostic approach, prognosis and therapy of multiple sclerosis have been reviewed. Our ability to recognize an active demyelinating process has improved greatly because of advancements in general immunology and clinical neuroimmunology.

It became obvious that multiple sclerosis represents a pathologic process involving more than the central nervous system. In patients with multiple sclerosis, the inflammatory demyelination of the central nervous system parenchyma is regulated by the entire, predominantly extraneural, immune system.

To obtain normal proportion in subpopulations of peripheral blood and cerebrospinal fluid lymphocytes, particularly T lymphocytes, appears to be the ultimate goal in future attempts to achieve efficient multiple sclerosis immunotherapy.

Pathology

Multiple sclerosis (MS) is an acquired inflammatory demyelination of the central nervous system (CNS) occurring in successive attacks in multiple, random sites. The plaques are often perivascular, including perivenous distribution. Mononuclear cells in plaques show evidence of immunoglobulin production with prevalence of cells containing light chains, predominantly of the kappa type.¹ Foci of demyelination are subsequently transformed in areas of sclerosis manifested by marked reduction in oligodendroglia and microglia and by hypertrophic astrocytes and their filaments.

Etiology and Pathogenesis

In the pathogenesis of MS four factors appear to be integrated:

- **Genetically influenced mechanisms.** Certain HLA haplotypes are associated with increased susceptibility to MS. HLA-A₃, B₇ and DW₂ or DRW₂ in persons of northern European origin were found more frequently in MS patients as compared to matched controls. Association of certain genes with MS in some ethnic groups (for example, of DRW₆ in Japanese and DRW₄ in Italians) has been reported. Genes B₃₅ or DRW₁ alone or in combination (in the presence of B₇, DRW₂ or both) or B₁₂ or DRW₇

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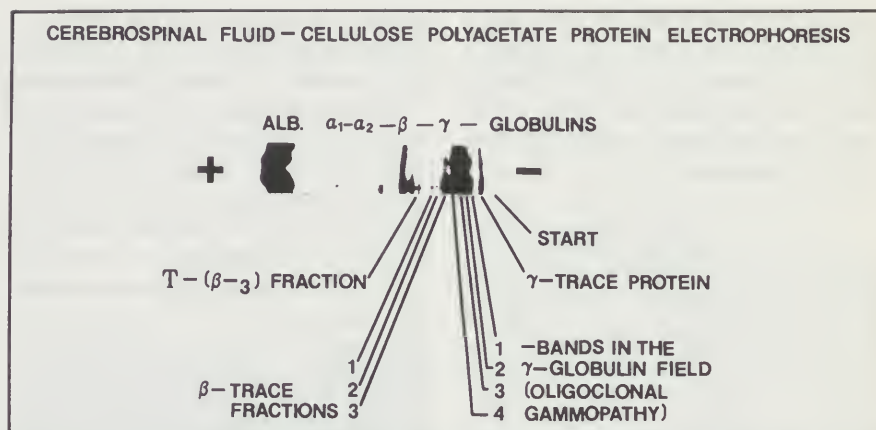


FIGURE 1: Cerebrospinal fluid protein electrophoresis in a patient with multiple sclerosis showing bands in the gamma globulin field (oligoclonal gammopathy).

alone are considered to be protective. There are indications that genes B₈ and DRW₃ may exert a supporting effect in pathogenesis of MS.²

Siblings discordant for HLA alleles may both develop MS. MS was found to be 12 to 15 times more frequent in first degree relatives.

HLA haplotypes are not predictive of MS.

- **Environmental factors.** Although demyelination may be associated with exposure to toxins, viral infection or vitamin deficiencies, neuropathologic manifestations established in those conditions are different from those seen in MS.

Several viruses have been identified to cause CNS demyelination in animals. There is, however, no convincing evidence of a specific virus causing MS.

There is prevalence of MS in northern zones of North America and Europe and in southern portions of New Zealand and Australia. Orientals have a very low incidence of MS. Racial factors probably also influence clinical presentation of MS. The neuromyelitic form of MS (neuromyelitis optica) is, for example, encountered more frequently in Japanese patients.

Studies on individuals migrating from areas of low prevalence indicate that MS is probably acquired prior to the age of 15.

- **Oligodendroglia and CNS myelin.** CNS myelin and the associated oligodendroglia represent the target structures of the disease process in MS. These structures may be altered by toxins, metabolic disturbances, ischemic mechanisms, viral infections or immune processes.

Normal myelin has the potential to trigger an autoimmune response. The component of myelin that induces inflammatory demyelination is a structural myelin referred to as myelin basic protein (MBP), representing about 30% of CNS myelin proteins. There is no indication that MBP in MS is structurally abnormal. In MS the cerebrospinal fluid (CSF) may contain fragments of MBP.³ Quantitation of MBP in CSF by radioimmunoassay may reveal increased concentration of MBP in active MS as an indication of a nonspecific myelin injury.

Demyelinating capacity of MS sera is not disease specific and does not reflect activity of the disease or the extent of the ongoing demyelination. *In vitro*, the demyelination effect produced by MS sera can be

removed by incubation with whole white matter but not with myelin.⁴ Serum immunoglobulin G (IgG) obtained from animals immunized with oligodendroglia produces *in vitro* demyelination.

• Immunological mechanisms.

Application of CSF protein electrophoresis⁵ revealed for the first time an immunological abnormality in patients with MS manifested by increased concentration of CSF gamma globulins, unrelated to the CSF total protein level and to the concentration of gamma globulins in the corresponding serum specimen.

During the last decade, increased CSF level of IgG was recognized as a manifestation of multiple sclerosis in about 70-80% of MS patients examined. More than 20 years ago, introduced CSF agar gel electrophoresis⁶ and later agarose and cellulose acetate protein electrophoresis demonstrated bands in the gamma globulin field of CSF protein electrophoresis (oligoclonal gammopathy) in 80-90% of patients with MS (Fig. 1).

The nature of the antigen against which CSF oligoclonal immunoglobulins are directed remains unknown. CSF oligoclonal antibodies in MS were found to react with at least one of eight viral and four bacterial antigens⁷ as well as with MBP.² Oligoclonal gammopathy in CSF also may be demonstrated by means of isoelectric focusing on polyacrylamide gel⁸; however, this technique is more elaborate and has no practical advantages compared to agar gel and/or cellulose acetate electrophoresis. In the serum of some MS patients, oligoclonal gammopathy also may be demonstrated particularly well by using isoelectric focusing.

About two to three times more frequently than in controls, peripheral blood lymphocytes of MS patients adhere to measles-infected

cells in cultures. Multiple lymphocyte subpopulations were shown to be involved in these phenomena. The adherence occurs in the presence of macrophages. Prostaglandin synthetase inhibitors (aspirin, indomethacin) inhibit the adherence. Normal lymphocytes incubated with prostaglandin E₁ and E₂ acquire the ability to adhere to measles-infected cells. In response to

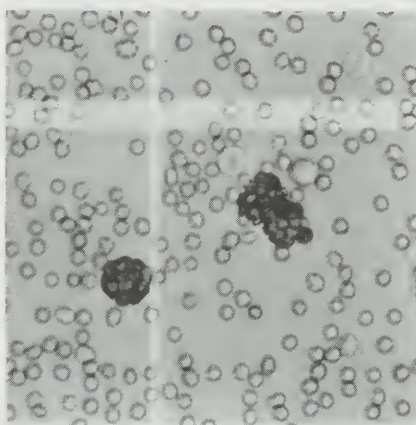


FIGURE 2A: T_G cells represented by T lymphocytes carrying receptors for Fc fragments of immunoglobulin G forming rosettes with red blood cells coated with IgG antibodies (x250).

measles antigen, peripheral blood lymphocytes of MS patients show decreased ability to synthesize immunologically specific DNA and type I interferon. Low production of interferon results in low concentration of natural killer cells in peripheral blood.

In peripheral blood of MS patients, decreased proportion of T-suppressor cells, reflected in reduced percentage of T_G and T_S cells⁹ and increased percentage of B cells and/or inducer-helper T₄ cells, may be established, especially during an acute state and/or exacerbation of the disease. In CSF, instances of acute MS or exacerbation of the disease are similarly manifested by a decreased percentage of T_G cells (Fig 2-A). Decreased proportion of CSF T_G cells in these patients frequently is accompanied by

a reduced percentage of T_G cells in the corresponding peripheral blood specimen. There is, however, no direct correlation between the percentage of T_G cells in CSF and peripheral blood.

Incidence

Actual incidence of MS probably will never be established. At present, the generally accepted estimate is about 30-80 cases of MS per 100,000 population, with greater prevalence in northern temperate zones of North America and Europe. Neuropathologic studies of autopsy material, however, indicate that for every three to four MS patients diagnosed there is at least one in whom diagnosis of MS was not obtained *intra vitam*. The number of individuals with clinically inapparent and/or arrested MS probably is even higher.

Clinical Symptomatology

MS is the most common disabling neurological disease occurring in young adults in North America, Europe and Australia. First signs of MS usually are observed during the third or fourth decade. Women are more frequently involved than men.

Definite clinical diagnosis of MS is based on objective neurological signs. For example, diagnostic criteria for definite MS suggested by Schumacher *et al*,¹⁰ include:

1. Onset of symptoms between the age of 10-50,
2. Objective neurological findings indicating two or more separate lesions involving the CNS,
3. Neurological symptoms suggestive of a predominantly white matter disease, and
4. Indications of two or more episodes of worsening in neurological symptoms separated by one month or more, each episode lasting at least 24 hours or slow progression over a period of at least six months.

The actual extent of CNS in-

involvement in individual patients with MS cannot be determined on the basis of objective neurological symptomatology because of clinically inapparent CNS lesions, which may be established by various laboratory techniques (see Laboratory Findings, below).

Presenting neurological symptoms of MS most frequently include increased fatigability, paresthesias, motor deficits, visual disturbances, alterations in sexual functions, increased frequency, urgency or delay on urination, problems with coordination and gait and/or difficulties in maintaining balance. With progressive disease, alterations of speech, muscle spasticity, marked muscle weakness, urinary and fecal incontinence, disabling tremor and secondary complications, urinary tract infections and decubiti may incapacitate the patient. Sensation deficits are predominantly manifested by decreased vibration and position sense.

Involvement of peripheral nerves in MS patients is considered secondary to complications of MS. For example, nerve compression in patients with severe muscle weakness in extremities may result in inadequate nutrition, including inadequate vitamin intake, exposure to exogenous or endogenous toxins, etc.

Neurological symptoms of MS may last minutes to weeks. In about 15% of MS patients the clinical symptomatology may show a stroke-like onset with symptoms reaching maximum in less than one hour. Usually the neurological symptomatology develops over the course of one to 12 weeks. About 10% of MS patients display a chronic progressive course with no indications of remission. In patients with spastic paraparesis, in whom etiology of the CNS involvement is established, about one-third are diagnosed as having MS.

In some MS patients, paroxysmal symptoms may be observed. These are manifested by neuralgias (including trigeminal neuralgia), predominantly unilateral or circumscribed painful muscle spasms, epileptic seizures and momentary speech and swallowing disturbances, or generalized or localized muscle weakness.

Exacerbation of symptoms may be established in some MS patients



FIGURE 2B: Plasma cell in the cerebrospinal fluid cytogram of a patient with multiple sclerosis (Giemsa stain, x400).

in the presence of an emotional stress. There is, however, not enough evidence for causal connection between emotional stress and objective neurological signs reflecting structural CNS changes in patients with MS. MS symptomatology may be aggravated by intercurrent diseases, especially infectious and/or metabolic disturbances, exposure to toxins and exhaustive physical activity. There is no evidence that pregnancy represents a significant risk of exacerbation of MS symptoms.

Some MS patients may suffer from decline in cognitive functions, which can be evaluated on psychometric testing. Psychotic episodes or incapacitating dementia in MS patients are rare. MS is frequently associated with moderate euphoric dementia and with unin-

hibited emotional expressions manifested by more or less pronounced spastic laughter or crying spells seen, for example, in pseudobulbar palsy. Depression in MS patients is more frequent than is usually recognized during a short follow-up office visit.

Early in the course of MS, remissions are common and patients may experience entirely symptom-free intervals between exacerbations. Later, during the course of the disease, remissions occur less frequently and patients are left with residual abnormal neurological findings. In patients with marked neurological symptomatology (for example, obvious muscle spasticity associated with muscle weakness and cerebellar signs in extremities, bilateral optic atrophy with decreased visual acuity, or spastic-dystactic gait requiring support on walking) the clinician may find it difficult to determine if there was progression in objective neurological symptomatology since the patient's last neurological examination months earlier. Clinical history that indicates increasing generalized tiredness, progressive or episodic muscle weakness and reduced endurance may be significantly influenced by the patient's depression and/or lack of motivation and must not be always substantiated on the neurological examination.

In general, one has to agree with Fog¹¹ that "most of the living time of a MS patient is characterized by a progressive course, a more or less steady increase of new signs, often unknown to the patient, but with a great variation in the rate of this progress."

Laboratory Findings

Laboratory tests in patients with a suspected demyelinating disease are aimed toward three basic goals:

1. To exclude a different, preferably specifically treatable disease

with presenting clinical symptomatology compatible with MS,

2. To specify the pathologic process involving the CNS, and

3. To substantiate the existence of multiple lesions involving the CNS parenchyma.

Space-occupying intracranial or intraspinal, histologically benign processes such as meningiomas, including foramen magnum and intraspinal meningiomas, fibromas, neurofibromas, teratomas, chordomas, dermoids and vascular malformations, may present neurological symptoms of fluctuating intensity, suggestive of exacerbations and remissions. Proper contrast studies usually help to reach the correct diagnosis. The widely used CAT scan of the head demonstrates hypodense areas in white matter, ventricular dilation and cerebral atrophy in about 30-40% of patients with MS. Contrast-enhanced CAT scan also may reveal areas of increased radiodensity suggestive of alterations in the blood/brain barrier, reflecting an active phase of the demyelinating process.

Using proper laboratory tests, collagen-vascular diseases, neurosyphilis, subacute bacterial and chronic anthroponozoonotic infections, intracranial or intraspinal arachnoiditis, cerebrovascular afflictions, chronic intoxications, endocrinopathies, metabolic disturbances and lymphoproliferative disorders should be excluded as the primary cause of neurological problems or as an associated pathology aggravating the demyelinating process.

There is no specific diagnostic test for MS; however, technically adequate examination of the CSF offers the most reliable information regarding the diagnosis of a demyelinating CNS process.¹² A set of CSF examinations including CSF cytology, protein electrophoresis, immunoelectrophoresis, and quantitative determination of

the CSF IgG concentration reveals abnormalities indicating a demyelinating CNS affliction, at least by some of the tests performed, in essentially all patients with definite

MS.

Integrated pathologic findings—presence of plasma cells in the CSF cytogram (Fig. 2-B), increase in the CSF concentration of IgG over 14%

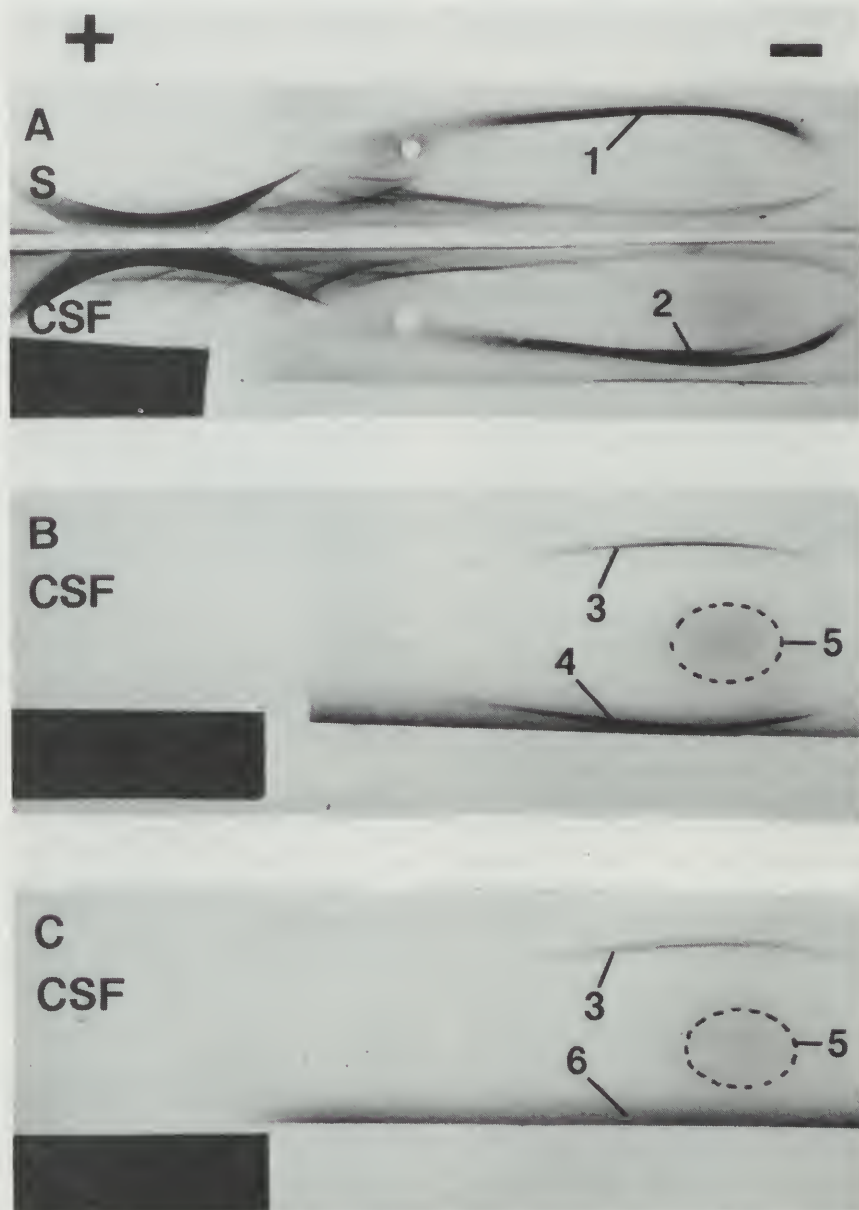


FIGURE 3: Serum (S) and cerebrospinal fluid (CSF) immunoelectrophoresis in a patient with multiple sclerosis.

A—As compared with the precipitation arc of Fab fragments of IgG in the serum electropherogram (No. 1), the corresponding cerebrospinal fluid precipitate (No. 2) shows prominent additional precipitate of light chains.

B—As compared to the precipitation arc of Fab fragments of immunoglobulin G (No. 3), the precipitation arc of kappa light chains displays elongation toward the anode. Increased concentration in gamma glycoproteins (No. 5) is also demonstrated. The precipitate of lambda light chains is of lower density and obviously shorter as compared to the precipitation arc of the kappa light chains (No. 4) and of the Fab fragments of IgG (No. 3).

of CSF total proteins and/or increased CSF IgG/albumin ratio (over .28), oligoclonal gammopathy revealed by CSF agar gel or cellulose acetate electrophoresis and immunoelectrophoretic findings indicating disproportion and/or increase in the CSF concentration of light chains, predominantly of the kappa type (*Fig. 3*)—often help in the initial diagnosis of MS.

In fewer than 10% of MS patients, perhaps because of fluctuation in the immunological manifestations of the disease, results obtained on the first CSF examination may not be convincing regarding a definite diagnosis of a demyelinating CNS affliction. Repeated CSF examination in about two to three months, especially in patients with persistent or progressive neurological symptomatology suggestive of MS, substantially increases chances of detecting more definite, diagnostic abnormalities.

In patients with clinical manifestations compatible with only one focus of demyelination in the CNS parenchyma, demonstration of an additional structural lesion is particularly important in instances with CSF findings strongly suggestive of MS. In this respect, examination of visual, brainstem-auditory and somatosensory-evoked responses become an important asset in the diagnostic workup of patients with suspected MS. Altered evoked responses in individuals with no abnormal subjective or objective neurological signs are indicative of early and/or subclinical lesions in the CNS parenchyma. In particular, visual-evoked responses may reveal abnormal findings in up to 80% of patients who have never noticed decrease of visual acuity or transient visual field deficits.

Before examining evoked responses in our daily clinical practice, demonstration of color blindness had been used to establish early retrobulbar neuritis in suspected

MS. Subclinical involvement of CNS also can be demonstrated using a hot bath test. An MS patient immersed in a 40°C bath may develop new symptoms or may show recurrence of previously observed signs which disappear once the patient is exposed to normal temperature.

Activity of the Disease and Prognosis

In view of recent immunologic studies of MS patients, one may assume that an active state of demyelinating disease is not always associated with obvious progressive subjective and/or objective neurological symptoms.

On examination of CSF, activity or exacerbation of a demyelinating process is manifested by:

1. Increased mononuclear cell count with an increased lymphocyte/monocyte ratio,
2. Decreased percentage of T_G cells,
3. Electro- and immunoelectrophoretic signs of alterations in the blood/CSF and/or blood/brain barrier structures, and/or
4. Increased concentration of MBP.

In the peripheral blood, acute state of MS or exacerbation of the disease is associated with:

1. Decreased percentage of T_G cells,
2. Decreased suppressor (T_S)/inducer-helper(T₄) cell ratio,
3. Increased proportion and/or activity of B cells, and/or
4. Decreased percentage of T cells forming early sheep red blood cell rosettes or T cells binding 10 or more sheep red blood cells.

In general, 10 years after the onset of the disease, more than 50% of MS patients are expected to be employed. After 20 years, about 30% are still employed, although with some limitations in their performance.

Patients with onset of objective

neurological symptoms in the second and third decade have more unpredictable courses. Onset of objective MS symptoms in the fourth and fifth decade is seen more frequently in patients with slowly progressing neurological symptoms, usually dominated by spastic paraparesis. Some authors believe that optic neuritis established in a woman between the ages of 20 to 40 carries greater risk of an ongoing demyelinating CNS affliction. Visual and sensory disturbances such as introductory clinical symptoms of MS are considered to be associated with a more benign course of the disease. Presentation of MS with muscle weakness and incoordination is suggestive of a less favorable prognosis. There is no correlation between the number of exacerbations and the prognosis of MS.

During the last two decades, probably because of a more vigorous treatment of complications, the life expectancy of MS patients has shown a favorable trend.

Therapy

There is no specific therapy or definite cure for MS. Nevertheless, recent advances in clinical immunology are suggestive of an approaching era of regulative immunotherapy aimed toward stabilization of the demyelinating process.

Treatment of MS patients may be divided into three basic categories:

1. Attempts to suppress activity of the demyelinating process and/or to stabilize the course of the disease,
2. Treatment of clinical manifestations of the disease, and
3. Proper therapy of complications or associated medical problems.

Currently, synthetic adrenocortical steroids are most often used to treat MS patients whose neurological symptomatology suddenly worsens. There is no evi-

dence that treatment with ACTH is more efficient as compared to the most frequently used prednisone, prednisolone, Decadron® (dexamethasone sodium phosphate) and Medrol® (methylprednisolone acetate). Especially at the early stage of the disease, corticosteroids improve the rate of recovery in patients experiencing an acute state or exacerbation of MS. On the other hand, treatment with corticosteroids has been shown not to diminish significantly the long-term functional deficits resulting from an exacerbation.

There are MS patients, more frequently during the later stage of the disease, who do not show appreciable regression in their objective neurological symptomatology when treated with corticosteroids. In these instances treatment with corticosteroids should be gradually discontinued after one to two weeks of unsuccessful medication. There are no clinical observations indicating beneficial effect of chronic corticosteroid therapy in MS. On the contrary, complications such as those associated with bacterial infections and progressive osteoporosis, particularly in wheelchair-bound patients, do argue against prolonged corticosteroid treatment in MS.

Subarachnoid injections of corticosteroids in patients with MS, introduced more than 20 years ago, increase risk of secondary local inflammatory manifestations and have no lasting beneficial effect. Recently reported administration of one gram of methylprednisolone per day intravenously¹³ to MS patients was associated with decreased serum and CSF IgG concentration, which may be obtained by oral application of corticosteroids.

Currently, there is no laboratory test available that would be helpful in selecting MS patients who potentially may benefit from a short therapeutic trial with corticosteroids. In

this respect, our preliminary data suggest that MS patients in exacerbation who, after having had one week of oral corticosteroid therapy, with the average starting daily dose of 60-80 mg of prednisone, show increase in the percentage of peripheral blood T_G cells have a greater chance to experience regression in their neurological symptomatology. Application of corticosteroids probably affects different subpopulations of T lymphocytes differently in various phases of the demyelinating process. Therefore, the effect of a certain dose of corticosteroids in individual MS patients may be reflected by considerably variable clinical manifestations. Better understanding of actual interactions between subpopulations of T cells in an MS patient treated with corticosteroids will allow the clinician to choose the proper daily dose and duration of the immunosuppressive therapy.

Immunosuppressive treatment without longitudinal immunologic studies is difficult to evaluate because of known spontaneous remissions of MS. For example, a reduced number of relapses was recently reported in female MS patients treated for 15 months with antilymphocyte globulin, prednisolone and Azothioprine.¹⁴

Attempts to influence the course of MS by stimulating the immune system have not been previously successful. Levamisole has no effect. Transfer factor, a human leucocyte extract, is not a single substance. T lymphocytes are considered to contain a larger amount of transfer factor.

Previous therapeutic trials with transfer factor in MS patients were not associated with significant improvement in evoked potentials, CSF findings or in severity of disability. The most recent two-year prospective double-blind trial of transfer factor treatment in 58 patients with MS in Australia¹⁵ re-

vealed two particularly important aspects: Significant difference between treatment and placebo groups was not apparent until 18 months after the start of the trial, and treatment was effective only in those patients with mild to moderate disease activity. Therefore, diagnosis of MS at the earliest stage of the disease appears to be a prerequisite for efficient treatment with transfer factor.

Treatment of clinical manifestations of MS usually is integrated in special clinics and includes:

1. Medical treatment,
2. Physical and occupational therapy,
3. Surgical treatment and management of urinary incontinence, and
4. Psychotherapy, including psychosexual aspects of the disease.

Medicamental management of spasticity represents one of the most important factors in the complex treatment of individual MS patients. Proper daily dose of Liorel®[®], in some patients with a small dose of diazepam, or in instances of progressing spasticity, therapeutic trial with Dantrium® may significantly improve the patient's performance and enhance the efficiency of the patient's physical therapy program. Antispastic medication has to be adjusted in accordance with changes in the patient's neurological symptomatology regarding, for example, the severity of the associated cerebellar symptomatology. Known toxic side-effects of antispastic therapy may be almost always prevented by monitoring the necessary laboratory tests.

Opinions vary regarding treatment of an acute state of MS and/or exacerbation with bedrest or with physical therapy, including exercises. There is, in general, no evidence to support either approach. Basically, excessive physical activi-

ties that leave the patient exhausted are contra-indicated regardless of the state of the disease. Appreciation of the optimal resistance and endurance in exercises in individual MS patients reflects the experience of the physician and physical or occupational therapist involved. Gait training with and without support is an important part of the program.

Self-catheterization should be encouraged whenever possible; however, with progressive incoordination and increasing intentional tremor, permanent catheter with periodic follow-ups by the patient's urologist is necessary in advanced MS.

In MS patients with progressive muscle spasticity and contractures in extremities, surgical treatment including phenol nerve blocks, neurotomies, extensive tenotomies, myotomies or capsulotomies are necessary, especially in individuals with decubiti. In disabling intractable tremor, stereotaxic neurosurgical intervention should be considered.

Virtually all MS patients require psychotherapy. Unfortunately, because of the time involved, we are obviously failing to provide adequate support to the majority of MS patients. Practically every patient with MS develops problems with sexual functions, directly or indirectly involving his or her sexual partner. Sensitive counseling usually is helpful until the patient reaches a certain level of physical impairment such as excessive tiredness and muscle weakness, spasticity, or urinary or fecal incontinence. In patients with perineal sensory loss, a contraceptive intrauterine device should not be used because the patient may be unable to appreciate pain secondary to a local inflammation.

One of the most frequent complications, especially in MS patients with advanced spastic paraparesis,

is recurrent lower urinary tract infection. Urine cultures in two- to three-month intervals are indicated because MS patients with sensory deficits often are unable to recognize the presenting clinical symptoms. Periodic general physical examination of MS patients helps to detect unrelated associated medical problems that may aggravate indirectly the demyelinating CNS process.

MS patients often are victims of an unethical advertisement promising cure or substantial improvement in their symptomatology. Treatment with hyperbaric oxygen, snake venom, calcium aminoethyl phosphate, etc., often consumes a substantial portion of the patient's savings. Inappropriate diets may endanger MS patients with malnutrition. Various therapeutic aspects in MS should be, at least once, thoroughly discussed

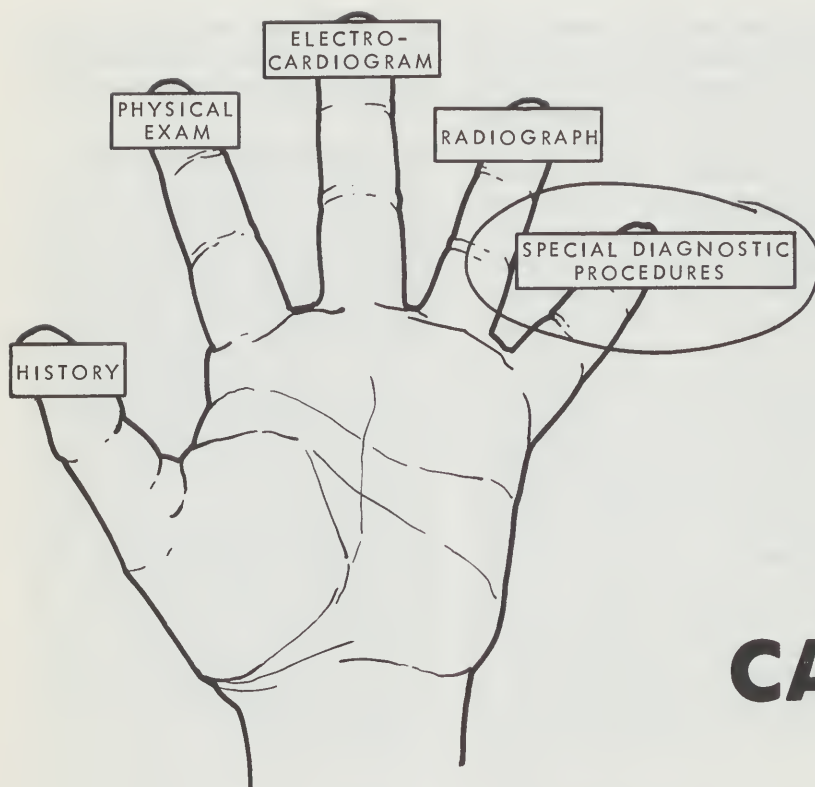
with the patient and his family in the context of our current understanding of the pathogenesis of MS.

Social and Vocational Aspects

An experienced social worker plays an important role in psychosocial adaptation of individual MS patients. In this process, the patient's family may be particularly helpful. Family members should feel free to consult the physician in case the patient shows difficulties in functioning in his family network. The physician also should describe available services to the patient considering his neurological findings and course of the disease. The neurologist carries the main responsibility of estimating the patient's prognosis when recommending vocational training and necessary limitations in his professional activities.

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THE FIVE FINGERS OF CARDIOLOGY

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The Five-Finger Approach to Cardiac Diagnosis was conceived by W. Proctor Harvey, M.D., of Georgetown University, and further developed by J. Willis Hurst, M.D., of Emory University into its present form: The integration of all five approaches is diagrammed into a "fist" of cardiac-diagnosis.

Periodically, THE JOURNAL will present a "finger of cardiology" as a self-assessment, emphasizing current and innovative diagnostic and therapeutic principles.

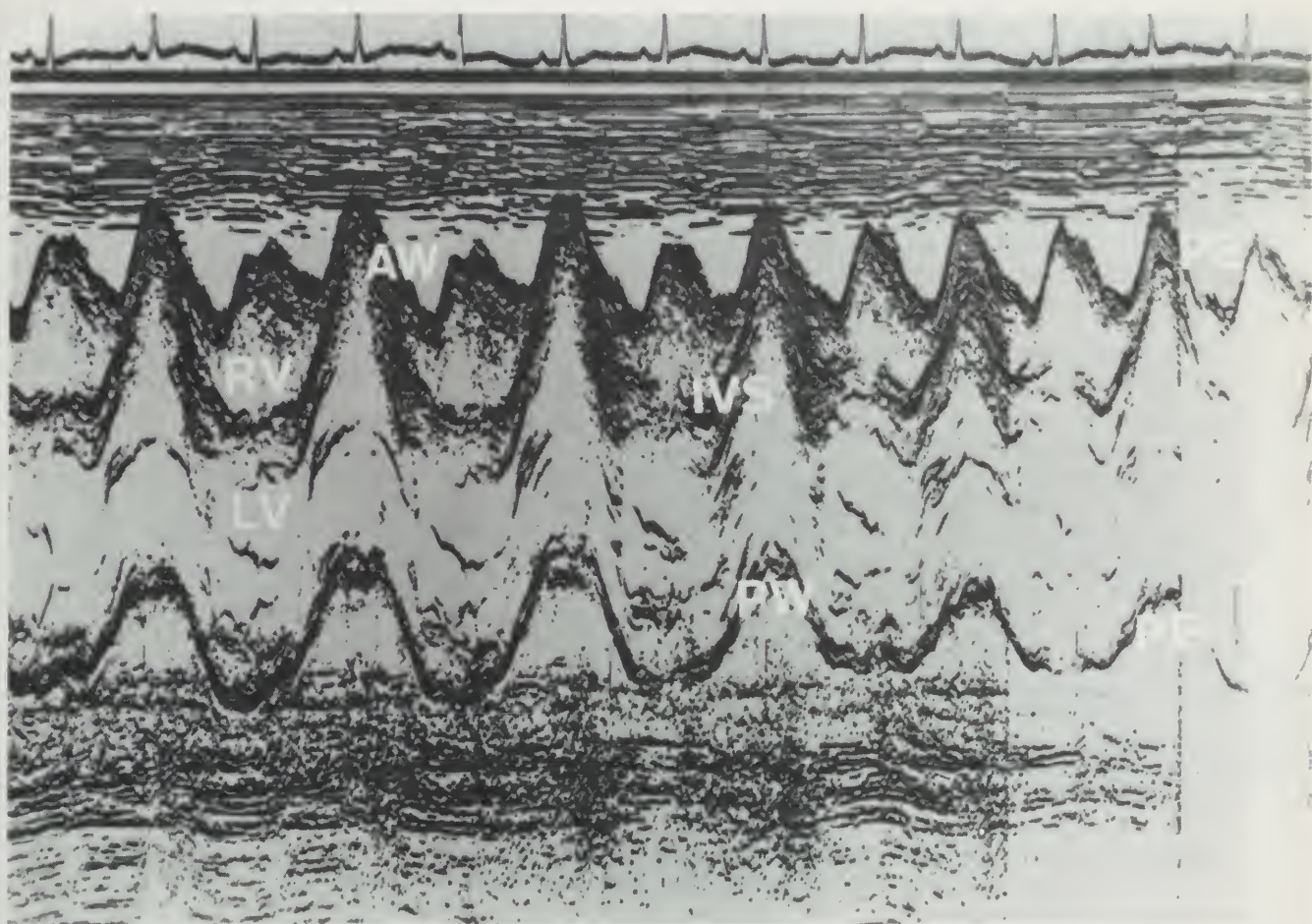
PROBLEM

A 15-year-old girl is recovering from an upper respiratory tract infection when she develops moderate chest pain, severe dyspnea, and profound weakness.

Physical examination demonstrates hypotension, venous hypertension, quiet heart sounds, and a fall in the systolic blood pressure during inspiration.

The echocardiogram is illustrated on the opposite page.

Interpret the echocardiogram. Correlate this with the clinical findings, and suggest a diagnosis. What is appropriate therapy?



ANSWER

The echocardiogram shows a large pericardial effusion (PE) both anterior and posterior to the heart. In addition, note that the anterior wall of the heart (AW) alternates with respect to its approximation to the anterior chest wall. Interestingly, this phenomenon correlates with electrical alternans on the electrocardiogram. More importantly, note the oscillation of the interventricular septum (IVS), wherein the septum moves back and forth, resulting in a reciprocal relationship between right ventricular (RV) and left ventricular (LV)

dimensions. This phenomenon correlates with pulses paradoxus, and is an echocardiographic feature of pericardial tamponade.

Indeed, the physical finding of hypotension, venous hypertension, and paradoxical pulse also confirm the diagnosis.

The therapy is immediate pericardiocentesis, which relieves the patient's symptoms and hemodynamic abnormalities promptly. 1,200 cc's of serosanguinous fluid was removed. With steroid and other supportive therapy, the patient fully recovered within days to enjoy normal cardiac function.

The Patient With Mild to Moderate Essential Hypertension: Peripheral Renin Activity and a Comparative Drug Study

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INDEX TERMS:

Mild to Moderate Essential Hypertension
Peripheral Renin Activity (PRA)
Propranolol
Chlorothiazide
Hydrochlorothiazide and Spironolactone

ABSTRACT

Patients with mild to moderate essential hypertension studied by peripheral renin activity (PRA) after furosemide challenge had significantly lower PRA than a control population. In the controls, age was inversely proportional to PRA and women had lower PRA. Age and sex had no effect in the patient group. Patients were maintained on a 1.5 g sodium diet and were given placebos, propranolol, chlorothiazide, and a combination of hydrochlorothiazide and spironolactone in a double-blind, crossover, study. Each of the three medications was effective in lowering blood pressure, although no single mode of therapy was superior. When patients treated with either of the two diuretics and propranolol were studied, there was a better response to propranolol. When patients with the lowest PRA were compared to those with the highest PRA, high PRA patients responded better to propranolol than to the combination of hydrochlorothiazide and spironolactone, while in those with low PRA, there was no significant difference.

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THE DISCOVERY of hypertension in adrenal disease allowed not only separation of another form of secondary hypertension from the "essential" category but introduced the concept that elevated blood pressure was a response to hormonal imbalance.¹ The renin-angiotensin system is a series of interacting chemicals which may or may not act as hormones and which was initially implicated in the causation of renovascular hypertension.²⁻⁹ The system

responds to decreased vascular circulation of the kidney by vasoconstriction and by stimulating aldosterone secretion, resulting in sodium retention and restoration of vascular circulation, especially in the kidney. Abnormally high peripheral renin activity (PRA) has been noted in malignant hypertension, especially that caused by atherosclerotic renovascular disease, fibromuscular hyperplasia, and unilateral renal artery stenosis.¹⁰⁻¹⁹

Laragh and other investigators reported that patients with essential hypertension who had relatively low PRA differed from patients who had relatively high PRA.^{10,15-19} Patients with low PRA show the following: increased tendency to retain sodium and water; increased capacity to respond to diuretic therapy and decreased capacity to respond to neural blockers; better prognosis, especially with respect to cardiovascular accidents.^{7,10,20-29} Also Laragh and others proposed that beta blocking drugs lower blood pressure primarily by depressing renin secretion and that patients with high renin respond better to beta blocking drugs than to diuretic therapy.³⁰ Such observations suggested it practical to categorize each patient with essential hypertension according to his PRA and plan his therapy with neural blockers and diuretics according to that rating.^{7,31}

However, there are technical difficulties that have not been resolved in assessing the renin-angiotensin system. Various peptides within the system can be measured and provision must be made for assessing sodium balance.³²⁻⁴⁰ The renin-angiotensin system once measured must be evaluated with regard to the patient's age, sex, and race since these factors have been reported to influence PRA.^{23,41-45} Medications (estrogens, antihypertensive agents and others) also have been shown to raise or lower PRA.^{10,46} Finally, PRA may vary from year to year within the same patient.^{47,48}

Therapeutic trials initially reported that patients with high PRA uniformly respond best to beta blockers while those with low PRA respond to diuretics.¹⁹ However, subsequent studies have only partially confirmed these findings and other aspects of the renin profiling theory.⁴⁸⁻⁵⁰ Patients with low PRA were reported to have increased circulat-

ing levels of various compounds with mineralocorticoid activity and to respond better to spiro lactone, which inhibits mineralocorticoid activity.^{51,52}

It can be shown that propranolol, one of the beta blockers, lowers PRA.^{30,53-60} However, the degree of blood pressure lowering is not necessarily related to the PRA.^{51,55,61-66} In fact, other beta blockers may not produce a significant decrease in PRA.⁶⁵⁻⁶⁷ Also, propranolol lowers the blood pressure of patients with low PRA.⁶⁸ In addition, low PRA patients differ from high PRA patients with regard to the quantity of circulating catecholamines. Low PRA patients have shown low levels while high PRA patients have shown high levels.^{22,23,69}

Personality traits such as repressed hostility have been associated with high renin essential hypertension.⁶⁹ Indeed, patients with anxiety respond to propranolol and patients with essential hypertension respond to psychotherapy by lowering PRA, indicating that the disease states may be related.⁷⁰⁻⁷³

The following report surveys renin responsiveness of 63 outpatients with essential hypertension after a furosemide stimulatory test and the therapeutic efficacy in a double blind, crossover, study utilizing placebo, chlorothiazide, propranolol, and a combination of spironolactone and hydrochlorothiazide, each combined with 1.5 mg sodium diet. We did not categorize absolutely the 63 patients into low, normal, high renin groups since we studied low to moderate hypertension, intending to exclude patients with malignant hypertension or patients with diastolic blood pressure exceeding 120. We did compare the usefulness of a beta blocking agent, a diuretic containing spironolactone, and a diuretic that did not contain spironolactone. We also compared patients

who had been treated with both beta blockers and a diuretic and who were among either the lowest PRA group or the highest PRA group. We feel this study has wide applicability to the vast majority of outpatients and provides insight into the diagnostic value of PRA measurements and initial antihypertension therapy.

Materials and Methods

Patients with essential hypertension were evaluated for the study by history and physical examination, blood studies that included creatinine and potassium, urine for routine analysis and VMA screen, EKG, chest x-ray, and renal scan or rapid infusion IVP. Patients were admitted to the study if initial diastolic blood pressure was 90-120 mm Hg. Blood pressure in each patient was measured by two trained nurses and confirmed by two physicians. Blood pressure measurements were performed in the early morning, while the patient was standing and recumbent, using both right and left arms.

Each patient was studied by a renin responsiveness test, which included a 24-hour period in which the patient's diet was limited to 10 mg of sodium and the patient was given 120 mg of furosemide in three divided doses. At the end of the 24-hour period, a fasting blood sample was drawn into chilled tubes containing disodium EDTA. The specimen was obtained between 7 a.m. and noon after at least a two-hour ambulation for measurement of peripheral renin activity (PRA) by radioimmunoassay for angiotensin I by a modification of the method of Haber, *et al.*⁷⁴

PRA measurements of the patients were compared to that of a control population of 49 persons who were healthy, normotensive hospital personnel. Each denied the use of estrogen compounds, diuretics or antihypertensive med-

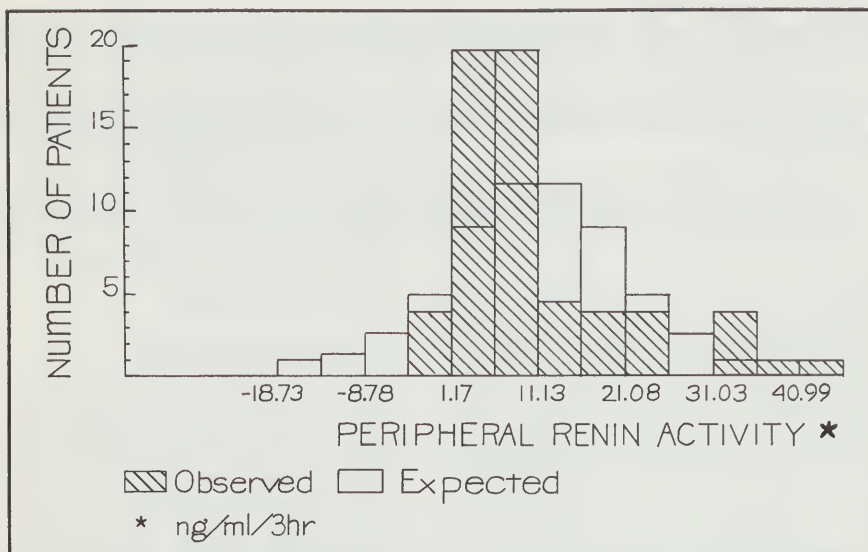


FIGURE 1: Distribution of peripheral renin activity (PRA) in patients. Observed vs. expected.

ication, and was subjected to the same diet and dosage of furosemide as the experimental patients for a 24-hour period. The manner and timing of obtaining blood was the same as in the patient population.

After the initial evaluation, a double blind, crossover, study was initiated. Eight-week periods of therapy were separated by three-week periods without medication. The following medications were prescribed: hydrochlorothiazide/spironolactone, two tablets b.i.d. (each tablet contains 25 mg hydrochlorothiazide and 25 mg of spironolactone), hydrochlorothiazide/

spironolactone placebo two tablets b.i.d., chlorothiazide 1 tablet (500 mg) b.i.d., chlorothiazide placebo 1 tablet b.i.d., propranolol 2 tablets b.i.d., (each tablet contains 40 mg), propranolol placebo 2 tablets b.i.d. After eight weeks of therapy, the patients were withdrawn from therapy and were without therapy for three weeks. Then each patient was again started on another eight-week course of therapy. After the second course of therapy, the patients were withdrawn from therapy, and asked to participate in the third eight-week course of therapy after a three-week washout period. Not all

patients were able to complete the second and third eight-week courses of therapy. Two patients completed four eight-week courses.

The therapy for each patient was assigned by a randomized computer program. The medication was dispensed by the pharmacy on the basis of the computer randomization program so that the study was entirely double blinded.

Each patient was seen biweekly in the clinic where all blood pressure measurements were taken by two physicians. Blood pressure measurements at home were recorded and used for corroboration of clinic blood pressure recordings. Patient medication was counted at the clinic visits. The physicians recording the blood pressure readings did not know the results of PRA measurements.

Each patient received dietary instruction to limit sodium to 1.5 g daily during the eight-week periods, but sodium was unlimited during the three-week washout periods. Each patient gave informed consent before beginning the program. Patients were eliminated from the study if the hypertension was secondary to renal, renovascular or known metabolic disease. No patient with obstructive lung disease, hay fever, diabetes mellitus, hepatic or renal disease was admitted.

Results

Eighty-one patients were enrolled in the study; however, data from only 63 Caucasian patients were considered. Thirty-seven patients (17 men, 20 women) were newly diagnosed patients while 26 (10 men, 16 women) had discontinued antihypertensive therapy at least two weeks prior to admission to the study.

I. PRA In Control Subjects and Patients. Forty-nine Caucasian control subjects (13 men, 36 women) (mean age 39.59, SD = 13.62)

Table 1: Peripheral Renin Activity (PRA) in Control Subjects and Patients

		Men	Women	Totals
Controls	Number	13	36	49
	PRA*Mean	25.85	17.43	19.67
	SD	9.45	9.61	10.19
	Age Mean	37.23	40.44	39.59
Patients	SD	14.02	13.57	13.62
	Number	27	36	63
	PRA*Mean	8.11	13.39	11.13*
	SD	6.61	11.41	9.95
	Age Mean	52.41	53.03	52.76
	SD	13.73	11.34	12.32

* ng/ml/3hr

had a mean PRA = 19.67 ng/ml/3hr. (SD = 10.19). See Table 1. PRA and age are inversely correlated in this group: $r = -0.4688$, $p = <0.001$. Mean PRA is significantly lower in women than in men ($t = 2.72$, $p = <0.009$). An additional test in which PRA was adjusted for age, i.e., in which age was used as a covariate, also showed mean PRA significantly lower in women ($t = 2.57$, $p = <0.012$).

Sixty-three study patients (27 men, 36 women) (ages 21-71) (mean age = 52.76) had a mean PRA = 11.13 ng/ml/3hr. (SD = 9.95). See Table 1. A chi square test showed abnormal distribution of the PRA in patients. The observed PRA values are shown in comparison to the expected values in Figure 1. $X^2 = 27.909$, $p = <0.0005$. PRA and age are essentially uncorrelated in this group: $r = 0.0898$, $p = 0.484$. Mean PRA is significantly higher in women than in men ($t = 2.30$, $p = 0.025$). This is the reverse of the relationship between PRA and sex that was observed among the control subjects. Again a test of the difference between mean PRA for men and women was conducted after adjusting for age. Mean PRA remains significantly higher for women ($t = 2.28$, $p = 0.025$).

When the patients and control groups were compared, the patient group had significantly lower mean PRA. ($t = 4.46$, $p = <0.001$). This result holds when PRA is adjusted for age ($t = 2.79$, $p = <0.007$).

II. Patient Response to Therapy. Mean initial diastolic blood pressure (DBP) measurements within the patient group was 104.1 mm Hg. Table 2 shows DBP lowering during six different therapeutic programs. In each program, except for chlorothiazide placebo and for propranolol placebo where there were too few patients for analysis, the level of DBP lowering was significant. $p = <0.05$.

Table 2: Diastolic Blood Pressure (DBP) Reduction in Response to Drug Therapy

Therapy	Mean ↓ (DBP)	No	SE	SD	t	p
H/S	20.064	34	1.514	8.830	13.25	<.001
C	18.923	32	1.683	9.520	11.24	<.001
P	20.120	24	2.066	10.121	9.74	<.001
H/Sp	8.927	14	2.473	9.254	3.61	<.01
Cp	5.650	9	3.052	9.157	1.85	≈.1
Pp	9.250	2	1.250	1.768		

H/S	Hydrochlorothiazide/Spironolactone
C	Chlorothiazide
P	Propranolol
H/Sp	Hydrochlorothiazide/Spironolactone placebo
Cp	Chlorothiazide placebo
Pp	Propranolol placebo

Fifty-eight patients completed 115 eight-week therapy periods. Nineteen patients completed only one period, 23 patients completed two periods, 14 patients completed three periods, and two patients completed four periods. Twenty-three of 81 patients were withdrawn from the study because of patient cooperation, diastolic blood pressure higher than 120 mm Hg, diagnosis of secondary hypertension and/or drug side effects. Five of these 23 were uncooperative and withdrew late in the study and their PRA levels are included above.

Because 39 patients completed at least two eight-week therapy periods, we were able to compare the blood pressure lowering within a patient while on two therapeutic regimens. Twenty patients were treated alternately with hydrochlorothiazide/spironolactone combination (H/S) and chlorothiazide (C) (Group I), 14 were treated alternately with H/S and propranolol (P) (Group II), 13 alternately with C and P (Group III), eight with H/S and hydrochlorothiazide and spironolactone placebo (H/Sp) (Group IV), three with C and chlorothiazide placebo (Cp) (Group V), one with H/Sp and Cp (Group VI).

A single patient's DBP lowering on each of two drug regimens was

compared by calculating the difference. Within each group, the mean difference was calculated and the level of significance was determined. Results for Groups I-IV are listed in Table 3. It can be seen that there was no significant difference in DBP lowering in patients treated with both H/S and C. Patients treated with P and H/S had greater DBP lowering with P therapy. However, the significance level was 0.066. When patients treated with both P and C were studied, P produced the greater DBP lowering: the significance level was 0.051. H/S lowered DBP more than H/Sp and $p = <0.053$. The other two placebo comparisons involved too few patients for consideration.

Eighteen patients were treated alternately with P and a diuretic (H/S or C). In this group, P lowered DBP 4.771 mm Hg more than the diuretic therapy. $S = 8.538$, $t = 2.37$, $p = <0.05$.

III. The Effect of PRA Level on the Therapeutic Efficacy. Six patients with low PRA (PRA = 0.4, 1.0, 1.45, 1.50, 2.70, 3.40 ng/ml/3hr) received both P and H/S. DBP at the end of the H/S therapy minus DBP after P was calculated. The mean = 3.522 mm Hg (DBP). Seven patients with high PRA (PRA = 21.9, 22, 24.3, 25.5, 33.3, 34.4, 42.2 ng/ml/3hr) were studied in a

Table 3: Comparison of Diastolic Blood Pressure Reduction by Two Drugs in Six Patient Groups

		Difference in Mean DBP	No	SE	SD	p
Group I	(H/S - C)	2.269	20	1.424	6.370	0.128
Group II	(H/S - P)	-5.357	14	2.668	9.982	0.066
Group III	(C - P)	-3.659	13	1.689	6.088	0.051
Group IV	(H/S - H/Sp)	8.790	8	3.774	10.675	0.053
Group V	(C - Cp)	5.050	3	3.748	6.492	0.310
Group VI	(HS - Cp)	3.250	1	—	—	—

H/S Hydrochlorothiazide and spironolactone
 C Chlorothiazide
 P Propranolol
 H/Sp Hydrochlorothiazide and spironolactone placebo
 Cp Chlorothiazide placebo

similar comparison. The mean = -8.442 mm Hg (DBP).

The two samples are significantly different ($p = <0.035$) when tested by the Mann-Whitney test and by the Wilcoxon-Mann-Whitney test ($p = <0.008$).^{75,76} This indicates that the high PRA group improved significantly more on P therapy as compared to H/S.

Discussion

The PRA of normal individuals is affected by the race, sex, and age of the individual.^{23,41-45} Although we studied only Caucasian individuals, we found women to have lower PRA than men and found PRA to be inversely correlated with age in both sexes.

The patient group differed from the control group in that the patient renin level was significantly lower and also in that factors affecting PRA in the control group (age and sex) had no effect in the patients' PRA measurements. This observation confirms reports of differing PRA in patients with essential hypertension.⁷⁷ A lowered mean PRA in addition to PRA measurements which were independent of age and sex indicate once again that PRA may be primarily or secondarily involved in the causation of essential hypertension.

It is interesting to note that within our patient population the higher PRA measurements were normally distributed. However, we excluded more severe forms of hypertension where high PRA has been associated with more severely progressive hypertension.³⁵ Consequently, inability to detect more patients than expected with relatively high PRA may reflect patient selection.²⁹

Laragh and his group have reported that patients with high PRA by renin profiling respond significantly better to propranolol, while those patients with low PRA respond better to diuretics.⁷⁸ We found a significantly lower diastolic blood pressure in patients with high PRA when treated with propranolol as compared to a combination of hydrochlorothiazide and spironolactone. However, the total patient group with a significantly lower PRA than in the control group responded equally to either of the two diuretics, chlorothiazide and a combination of hydrochlorothiazide and spironolactone, and to propranolol in significantly lowering the blood pressure. These observations differ from reports in which spironolactone treated patients responded better than thiazide treated patients, when both groups have relatively low renin values.⁵²

Eighteen patients treated with both propranolol and a diuretic responded better to propranolol. The superior response to propranolol could be due to the patients' furosemide-induced diuresis during the renin profiling and prior to therapy with diuretic or propranolol. It has been shown that even patients with low and normal PRA respond to propranolol and angiotensin antagonists by lowering their blood pressure once the total body sodium has been decreased.^{50,79-81} This decrease in sodium was maintained by a moderately low salt diet during the therapeutic trial period.

The practicality of renin profiling for every new hypertensive patient in every locality is still debated. However, the choice of anti-hypertensive medication for such patients has been markedly influenced by the controversy over the total or partial role of the renin-angiotensin system in the causation of hypertension. Such controversy has led to the American plan and to the European plan for treating uncomplicated hypertension. The American plan utilizes diuretic therapy first and if no response is obtained, shifts to a combined therapy of neural blockage and diuretic therapy. The European plan conversely begins with beta blockage and adds diuretics and other neural blockers subsequently.⁸²

Since patients in general responded to all three modes of therapy—propranolol, chlorothiazide, and a combination of hydrochlorothiazide and spironolactone—perhaps there is no need for either plan, especially since patients with high PRA will eventually be treated with an antihypertensive neural blocker.

However, there may be other considerations in the choice of anti-hypertensive medication besides blood pressure lowering. Recent studies have implicated thiazide in the possible causation of increases

in serum triglyceride, cholesterol levels and decreases in HDL cholesterol.⁸³⁻⁸⁵ In addition, there seems to be a synergistic hyperlipemic effect if propranolol is added to thiazide.⁸⁴⁻⁸⁷ Ticrynafen, a newly approved diuretic, in preliminary studies reduced triglyceride levels.⁸⁸

Propranolol decreases blood pressure while apparently not contributing to other aspects of atherosclerosis.⁸⁴ If propranolol were the initial antihypertensive medication prescribed, needless changes of medication could be avoided, especially in those patients who do have high PRA operating in the causation of their hypertension. It must be added that initial diuresis with furosemide and moderately low salt diet is advisable to insure a response similar to the one we

observed using propranolol to lower blood pressure.

Summary

We studied both normal individuals and patients with low to moderate essential hypertension by renin profiling after furosemide challenge. Normal subjects, especially women, showed lowering of the PRA as a response to increasing age. Hypertensive individuals did not show this response and were in general significantly lower in PRA when compared to the control group.

Hypertensive patients were then treated in a double blind, crossover, study by propranolol, chlorothiazide, and a combination of hydrochlorothiazide and spironolactone. In the overall group, no single mode of therapy was superior. Each

medication was effective in lowering blood pressure, although patients treated with propranolol and either of two diuretics responded better to propranolol. Patients with high PRA were found to show significantly lower blood pressure when treated with propranolol as compared to a combination of hydrochlorothiazide and spironolactone.

Because of the recently observed hyperlipemic effects of diuretic and combined therapy, because propranolol was effective in lowering blood pressure in patients with low PRA, and because propranolol was superior in lowering blood pressure in patients with high PRA, we suggest propranolol as the initial mode of therapy after renin profiling preferably or after an initial diuresis and moderately low salt intake.

Simple Removal of Inclusion Cysts

M. C. TAVENNER, M.D.
Marion

INCLUSION (sebaceous) cysts are very common. The most prevalent areas are the face, scalp, neck, and upper body. The usual manner of removal is utilizing linear incisions, dissecting the cyst, then approximating the wound with sutures. Linear incisions and sutures often result in scars. Described will be a simpler method; no long incisions and no sutures. This method is applicable for cysts of all sizes—whether or not infected.

Local is infiltrated under the cyst to block the nerves for anesthesia. On the top of the cyst, a small skin area (1 centimeter in diameter) is infiltrated with local. Using a #11 blade, a small stab wound is made in the area anesthetized on the top of the cyst. This stab wound need be only 4 to 8 millimeters in length. A bone curet is next utilized to curet away the cyst contents, including

the sac. It is necessary to be sure to remove the sac. After curetting the cyst contents away, take a small hemostat and explore the wound to be sure all the sac is removed. Application of pressure on the wound for an appropriate time will stop bleeding.

Infected cysts are usually a bit more difficult to remove since the sac is thicker and adherent to adjacent tissues. Sometimes I use a small uterine curet, which is a bit sharper than a bone curet, to get out the sac of an infected cyst. A dry dressing is applied. When the patient returns in two or three days, the small wound is opened with a small cotton applicator or the nose of a small hemostat to let out any fluid that might have accumulated. After that, the patient again returns in three or four days for another wound inspection. The wound by that time is healing fast and the patient is ready for discharge. Infected cysts might drain for a week or two and they take a little longer to heal.

This method, combined with the plastic principles of making the stab wound in accordance with the lines of skin tension and utilizing no sutures, will leave no noticeable scars.

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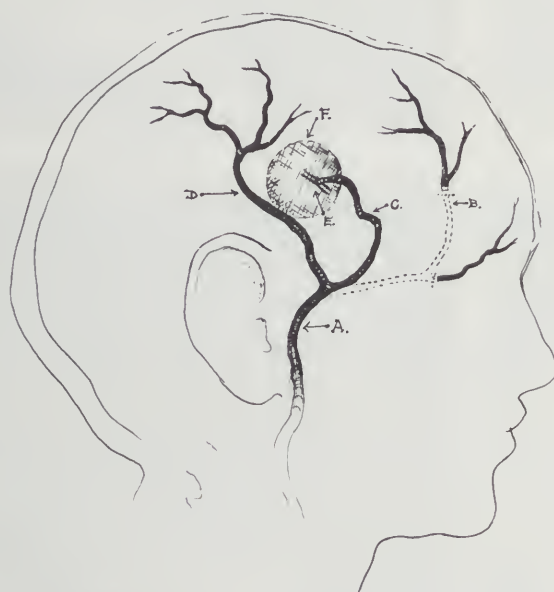
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Extracranial to Intracranial Cortical Vessel Anastomosis for the Treatment of Vascular Obstructions to the Brain

DANIEL F. COOPER, M.D.
TERRY G. HORNER, M.D.
Indianapolis



- A. Superficial temporal artery
- B. Normal course of anterior branch superficial temporal artery
- C. Anterior branch superficial temporal artery tunneled back to craniectomy site (F)
- D. Posterior branch of superficial temporal artery
- E. Superficial cortical vessel anastomosed to anterior branch superficial temporal artery

DIAGRAM 1

STROKE IS ONE of the most devastating problems faced in today's society. Not only must one consider the major suffering and disability to the affected person, but also there is a tremendous economic strain placed upon both the patient's family and the community due to the severe handicaps encountered.

Stroke is the third leading cause of death in the United States, with more than 400,000² strokes occurring each year. The etiology of strokes is variable. Two of the major causes have been found to be extracranial vascular disease at the carotid bifurcation and stenosis of major intracranial vessels.

When major stenosis or ulcerative plaques are found at the common carotid bifurcation, the treatment is usually that of aspirin

From Indianapolis Neurosurgical, Inc., 1633 N. Capitol Ave., Indianapolis, Ind. 46202.

or other antiplatelet adhesive drugs (Persantine, Anturane), anticoagulation and/or endarterectomy.⁵

Once the carotid vessels are completely occluded, attempts at re-opening such vessels normally are not successful.⁴ When the internal carotid artery is occluded or there is marked stenosis of vessels at the base of the brain, the brain has to rely upon vascular anastomoses for its blood supply. Anastomoses sometimes are not adequate, and the patient may continue to have transient ischemic attacks, reversible ischemic neurological deficits, or go on to a completed stroke.

The superficial temporal to cortical vessel anastomosis is an operation designed to by-pass occlusions of the extra-cranial vessels or areas of marked narrowing of the large vessels at the base of the brain. The scalp branch of the superficial temporal artery is dissected free by use of microsurgical techniques and then, through a small craniectomy, the superficial temporal artery is anastomosed to a vessel on the surface of the cortex of the brain. The vessels involved are approximately 1 mm in diameter. These vessels have been shown to hypertrophy after the anastomosis and are able to supply up to one-third of the blood normally supplied by an internal carotid artery that is fully patent.

Indications

The indications for this procedure have not been fully delineated. At present, the procedure is being evaluated for 1) continued transient ischemic attacks in a hemisphere to which the internal carotid artery is occluded, 2) for major stenosis of the arteries at the base of the brain, 3) symptomatic slow flow of blood on intracranial perfusion studies, 4) re-supply of areas of the brain receiving marginal blood supplies after previous

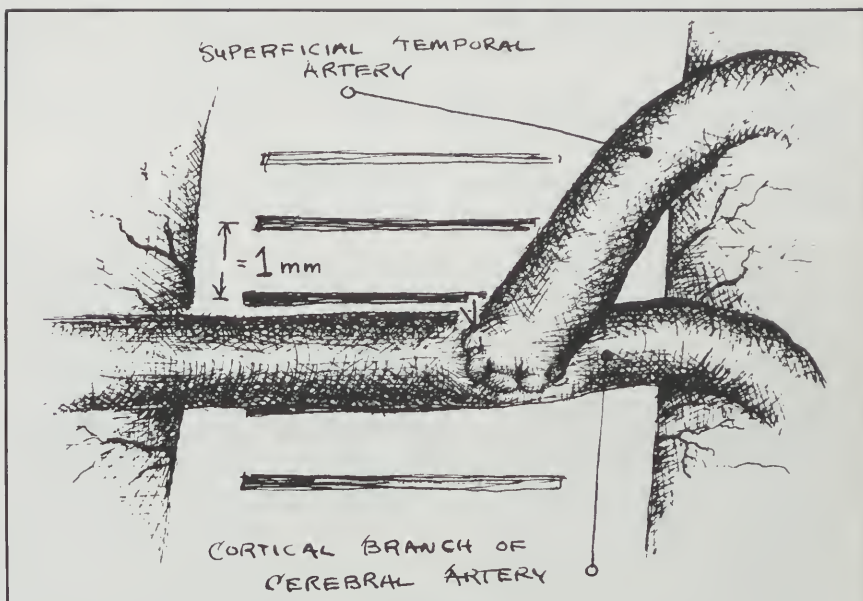


DIAGRAM 2

infarcts, and 5) re-supply of blood to the brain when major arteries have to be sacrificed in tumor or vascular surgery.

Work-up

A full work-up is indicated on stroke patients to determine the etiology of the stroke. In patients being considered for a superficial temporal to cortical vessel by-pass procedure, excellent three vessel cerebral angiography is a must. A full medical work-up also is indicated to evaluate the patient's risk in undergoing the surgical procedure.

Procedure

The procedure in brief is that of dissection of the superficial temporal artery from the scalp under high operative magnification. Great care is taken to dissect the artery carefully so that it is not traumatized. A small craniectomy is then placed over the area of the brain to be re-vascularized and the dura is opened.

An end-to-side microanastomosis is then made with 15-25 nylon 10-0 interrupted sutures. (Diagram 1).

The procedure does not actually require entry into the brain but surgery only on its surface (Diagram 2). There is no retraction of the brain involved and no anticoagulation is necessary. Great care must be taken to keep the patient's blood pressure in the normal range during the entire case since most of the people already have marginal blood supply to the brain.

We have now performed 50 by-pass procedures over the past three years, and the results have been gratifying. The patency rate of the by-pass procedure has been 100% in all of the arteries that we have been able to restudy of our first 25 cases. Four of the 25 patients have not yet had repeat angiography. There has been one complication of a post-op subdural hematoma. The patient recovered completely. The procedure is tedious but has been shown to be safe. In the beginning the operative procedure took 11 to 14 hours to complete. Now the operative time is down to four to six hours. More than 4,000 of these procedures have been done throughout the world. The procedure has been established as a satis-



FIGURE 1



FIGURE 2

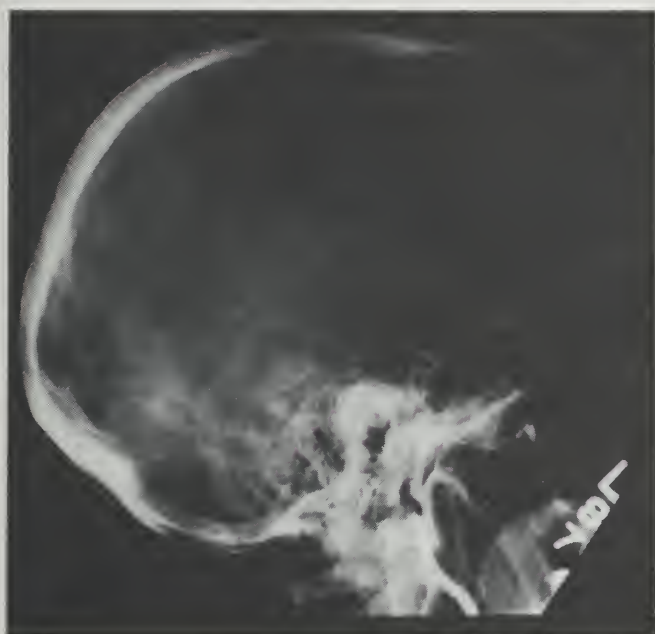


FIGURE 3



FIGURE 4

factory treatment to supply additional blood to the brain.

Case Reports: First 25 Consecutive By-pass Procedures

In 17 patients, the superficial temporal to cortical vessel anastomosis has been performed for transient ischemic episodes second-

ary to totally blocked extra-cranial vessels. Post-op angiography on these patients has shown 10 to have excellent filling, which is designated as filling the entire middle cerebral complex; three showed good filling with at least two branches of the middle cerebral complex being

filled; one intracranial artery filled poorly but was patent. Three of these cases have not yet had repeat angiography.

Case 4 represents a typical case. It was that of a 57-year-old woman with multiple recurring episodes of right-sided paralysis. These attacks



FIGURE 5



FIGURE 6

had been going on for at least two months, having three to four attacks a day with the paralysis lasting up to 10 minutes at a time. Angiography revealed total occlusion of the left carotid artery with poor collateral flow from right carotid and vertebral and external carotid (Figures 1 and 2). The superficial temporal artery (Figure 3) was then anastomosed to a cortical vessel. A repeat arteriogram eight days after surgery (Figures 4, 5, 6) showed the entire right middle cerebral complex to be perfused by blood from the superficial temporal artery. The patient had no symptoms compatible with transient ischemic attacks for the last two years.

In six cases the procedure was performed for prophylaxis of stenotic intracranial vessels. Five of these vessels were patent after operation. One patient has not had repeat angiography. If the stenotic vessels occlude, the superficial temporal vessel will then supply additional blood to the area of the stenotic vessel and, hopefully, prevent a stroke. It has been shown, as

the stenosis of the vessels becomes more severe, there is a general increase in flow through the superficial temporal by-pass vessels. In one patient the stenotic internal carotid did go on to occlusion two years after the by-pass procedure, and the anastomosis took over and is supplying the blood to the middle cerebral complex. No stroke occurred.

Two superficial temporal to cortical vessel anastomoses have been done prior to aneurysm surgery when occlusions of the intracranial internal carotid had to be performed. Both vessels filled excellently post-operatively.

Summary

The superficial temporal artery to cortical vessel anastomosis provides a method for resupplying intracranial cortical structures when there has been total occlusion of the extra-cranial carotid system or marked intracranial stenotic lesions. Transient ischemic attacks secondary to ischemia of the brain can be prevented by superficial temporal artery to cortical vessel anastomosis.^{1,3}

It is important that people with strokes have adequate evaluation to determine the etiology of the stroke. In appropriate cases, the superficial temporal to cortical vessel anastomosis should be considered in the treatment of ischemic brain.

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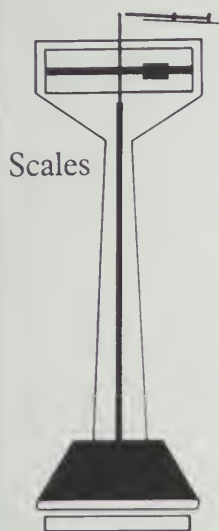


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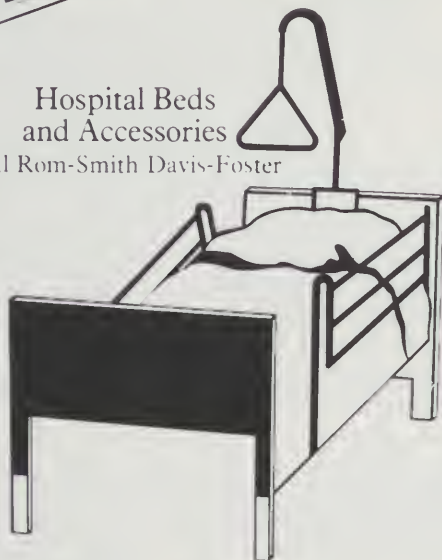


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PUBLIC HEALTH NOTES

Of the communicable diseases affecting animals and man, few have a greater emotional impact or precipitate more urgent requests for test results than rabies. Each year, more than 50,000 tests for this infection in animals are performed in the United States. The Indiana State Board of Health rabies laboratory usually ranks among the top 10 laboratories for numbers of specimens examined, approximately 2,500 each year. In 1979, 67 animals were found positive by one or more tests: 54 skunks, six bats, four cattle, one horse, one raccoon, and one dog.

For the routine laboratory diagnosis of rabies infections in domestic animals and wildlife, there are three tests that have been thoroughly evaluated—direct fluorescent antibody, Sellers' stain, and mouse inoculation. The first two are relatively rapid tests; the third requires several or more weeks to complete and rarely is necessary. Each type of test utilizes a different principle to demonstrate evidence of infection, but all three are based on the affinity of the rabies virus for the central nervous system, and they usually are performed on brain tissues.

Following entrance into the body, either through a bite or abrasion, the rabies viral particles move toward the brain via the peripheral nerves. The classical structure in brain tissue recognized as evidence of rabies infection is the Negri body, an intracellular inclusion body that must be differentiated from inclusions produced by other viruses such as the distemper agent.

The most valuable of the three tests is the relatively rapid direct fluorescent antibody (FA) procedure, which usually can be completed in one to two days. This test detects a rabies antigen-antibody reaction. Not only Negri bodies,

but also any aggregates of rabies antigen present in the brain tissue smears, combine with the anti-rabies antibody reagent, which is labeled with a fluorescein dye. Excitation of this dye by ultraviolet light permits microscopic visualization of combined antigen and antibody. If rabies infection is not present, no characteristic fluorescing materials are observed.

A second rapid test is the Sellers' stain method for detecting Negri bodies only. When the stain is applied to moist tissue smears, Negri bodies, if present, can be observed with an ordinary microscope. The very small inclusions rendered visible by the FA technique usually are undetectable in Sellers' stained smears.

The third examination method, mouse inoculation, tests only for the presence of a viable virus through the demonstration of rabies symptoms and Negri bodies or aggregates of rabies antigen in the brain of the mouse. The specimen to be tested is inoculated intracerebrally into white Swiss laboratory mice, and the mice observed for a period of time, extended to 30 days in the absence of symptoms.

Each of the three tests has advantages and disadvantages, and encompasses special considerations in interpretation. The Sellers' technique, which detects infections only if the virus strain has produced the larger sized Negri bodies, is the least sensitive. By this method alone, 15-20% of rabies infections are missed, but may be as high as 50% in some animal species. For this reason, and because of the relatively short time now required for the FA test, the usefulness of the Sellers' stain test has diminished significantly.

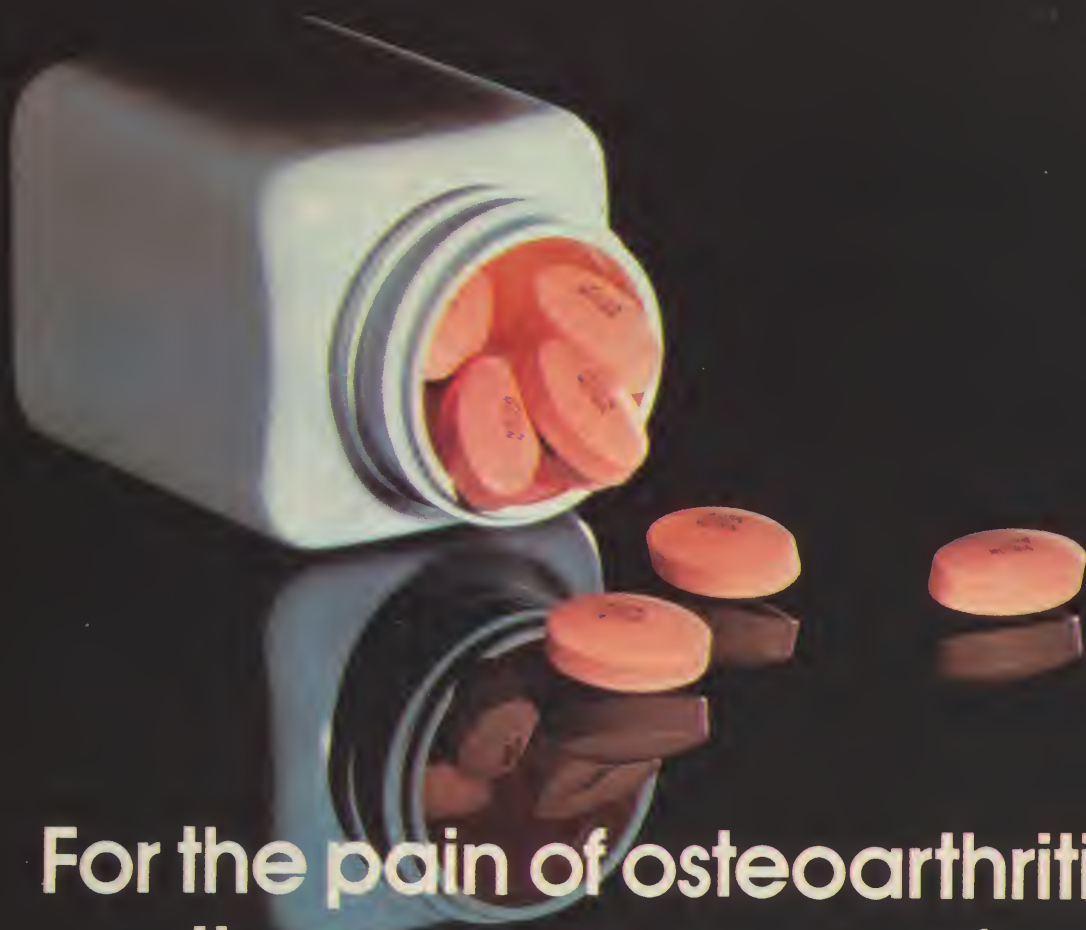
The FA and mouse inoculation tests are about equal in sensitivity. However, the FA test can detect

the presence of rabies antigen even though the viral particles are no longer viable; whereas the mouse test will not detect the presence of viral particles that are no longer viable and infective.

One of the most important factors in obtaining satisfactory test results is the condition of the animal's brain tissue at the time the specimen is received in the laboratory. Of the specimens submitted to the Indiana State Board of Health rabies laboratory, 1-2% are decomposed and unsatisfactory to the extent that reliable test results cannot be assured. Although examinations are made on decayed tissues, they are reliable only if the results are positive. If the results are negative, a judgment of negative or unsatisfactory must be made according to the degree of bacterial contamination and tissue cell decomposition. The physician's management of exposed individuals must then depend on epidemiological findings and other relevant information.

The proper holding and transporting of specimens for rabies examinations are therefore important. If specimens can be submitted within two to three days following death of the animal, they should be maintained at refrigerated temperatures of about 35°F. to 40°F. If the time interval is longer, specimens should be frozen. However, with frozen specimens the testing time is extended by time required for thawing, usually a 24-hour period. Specimens should not be placed in any preservatives or fixatives.

For further information regarding the bacteriological evaluation of rabies, contact Kathleen Harper, director of the Division of Microbiology at the Indiana State Board of Health, or call 317/633-0218.



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Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin*; use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when *Motrin* is added. The anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. *Aspirin*: used concomitantly may decrease *Motrin* blood levels.

Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea;* epigastric pain;* heartburn;* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness;* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under "Probable Causal Relationship" (PCR) if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under "Causal Relationship Unknown" if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

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CME QUIZ

Multiple Sclerosis

CONTINUED FROM PAGES 434-441

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Mononuclear cells in multiple sclerosis plaques show presence of:
 - a. mucopolysaccharides
 - b. lipofuscin
 - c. kappa light chains
 - d. virus particles
2. HLA haplotypes HLA-A₃, B₇, DW₂ or DRW₂:
 - a. are found more frequently in multiple sclerosis patients of Northern European origin
 - b. are not predictive of multiple sclerosis in individuals
 - c. may be found in subjects with no neurological problems
 - d. all of the above
3. Studies of individuals migrating from areas with low incidence of multiple sclerosis indicate that the disease is probably acquired prior to the age of:
 - a. five
 - b. fifteen
 - c. thirty
 - d. fifty years
4. Cerebrospinal fluid protein electrophoresis reveals in over 80% of patients with multiple sclerosis:
 - a. polyclonal gammopathy
 - b. monoclonal gammopathy
 - c. presence of fibrinogen
 - d. oligoclonal gammopathy
5. In an acute state and/or exacerbation of multiple sclerosis one would expect to find in the patient's peripheral blood:
 - a. decreased proportion of T_G cells
 - b. decreased ratio of suppressor/helper (inducer) cells
 - c. increased percentage and/or activity of B cells
 - d. all of the above
6. As compared to the incidence of abnormal findings established on CAT scan of the head in multiple sclerosis patients, visual, brainstem auditory and/or somatosensory evoked potentials reveal abnormalities:
 - a. in all patients
 - b. in lower percentage
 - c. in higher percentage
 - d. in equal percentage of the patients examined
7. Remissions of clinical symptomatology in multiple sclerosis are:
 - a. common early in the course of the disease
 - b. introduced in some multiple sclerosis patients with a short treatment with corticosteroids
 - c. not observed in about 10% of multiple sclerosis patients
 - d. all of the above
8. Abnormal cerebrospinal fluid cytomorphology, protein electrophoresis and immunoelectrophoresis and IgG concentration are indicative of multiple sclerosis in:
 - a. 50%
 - b. 80%
 - c. over 90% of patients with multiple sclerosis
 - d. none of the above
9. Patients in exacerbation of multiple sclerosis presenting subjective and objective improvement of neurological symptomatology following one week of treatment with corticosteroids would be expected to show in their peripheral blood:

Following are the answers to the CME quiz that appeared in the June 1981 issue of THE JOURNAL: "Clinical Echocardiography: Ten Most Useful Patterns," by Betty C. Corya, M.D. and Susan Rasmussen, R.N.

June CME Quiz Answers

- | | |
|------|-------|
| 1. c | 6. d |
| 2. b | 7. d |
| 3. a | 8. d |
| 4. b | 9. d |
| 5. c | 10. b |

CONTINUED ON PAGE 468

Answer sheet for Quiz: (Multiple Sclerosis)

- | | |
|------------|-------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for credit for this month's quiz, send your completed, signed application before Aug. 10, 1981, to the address appearing at the top of this page.

WILLIAM M. DUGAN, JR., M.D.
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New information from
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American Cancer Society, Inc.
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Breast Cancer Symposium

The Fourth Annual San Antonio Breast Cancer Symposium will be held Nov. 6 and 7 at La Mansion Del Norte. Abstracts of proffered papers on the experimental biology, etiology, prevention, diagnosis and therapy of breast cancer are invited. Abstracts accepted for presentation will be published in the new journal, *Breast Cancer Research and Treatment*, as well as in the Proceedings of the symposium.

The program of scientific presentations will include state of the art lectures by invited speakers:

- "Application of Recombinant DNA Technology to Clinical Medicine"—Bert W. O'Malley, M.D., chairman, Department of Cell Biology, Baylor College of Medicine.

- "Adjuvant Chemotherapy of Breast Cancer"—Paul P. Carbone, M.D., director, Wisconsin Clinical Cancer Center.

- "Surgery in the Primary Treatment of Breast Cancer"—Norman Wolmark, M.D., Montifiore Hospital, Pittsburg, Pa.

- "Autologous Bone Marrow Transplantation in Breast Cancer"—Patricia F. Stewart, M.D., Fred Hutchinson Cancer Center.

In addition, a special clinically oriented session, "Programs in Breast Cancer Management," will be held.

Symposium brochures and registration information are forthcoming. For additional information, contact Marilyn Rennels, Office of Continuing Education, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, Texas 78284.

Cancer Rehabilitation Plans

The Cancer Rehabilitation Program sponsored by, and located at, Emanuel Hospital and Good Samaritan Hospital & Medical Center in Portland, Oregon, was one of 14 rehabilitation programs funded by a National Cancer Institute contract between 1975 and early 1978. A resource document was developed during the contract period for internal use.

The second edition of *Cancer Rehabilitation Plans* is a comprehensive 271-page document that includes a general introduction to cancer rehabilitation, outlines of comprehensive rehabilitation plans for 15 common tumor sites, and an overview of radiation therapy and chemotherapy.

Rehabilitation plans include physical restoration objectives as well as emotional/social objectives. Contributors include physicians, nurses, medical social workers, clinical psychologists, enterostomal therapists, occupational therapists, physical therapists, dieticians, chaplains, speech pathologists, pharmacists, and community resources such as the Oregon Division American Cancer Society, Visiting Nurse Association, and Oregon Comprehensive Cancer Program.

This resource document is available at \$9.50 per copy to cover printing and handling. Copies can be ordered from: The Cancer Rehabilitation Program, Emanuel Hospital, 2801 N. Gantenbein Ave., Portland, Oregon 97227.

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For more information contact: The ICRDB Program, Building 31, Room 11A04, National Cancer Institute, Bethesda, Maryland 20205. Phone: (301) 496-6271.

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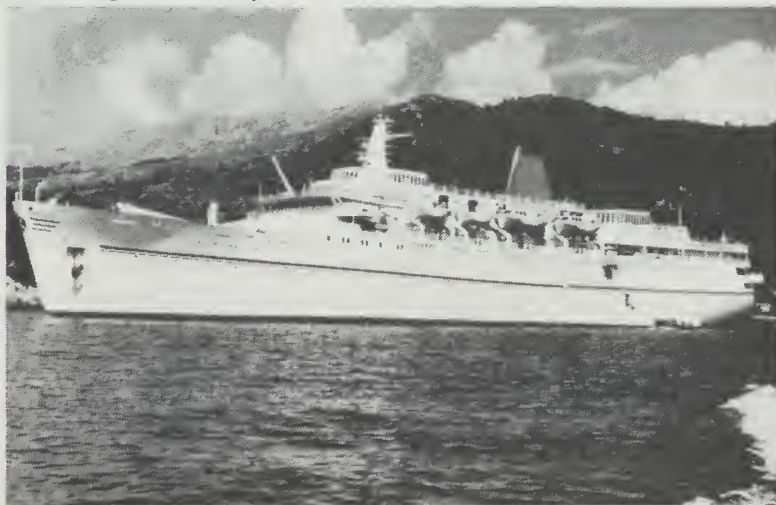
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ISMA Auxiliary Prepares To Begin Interviews For Radio Series



Posing during an Auxiliary "information sharing" workshop in Indianapolis are, from left (front row), Karen Lewis, ISMAA communications chairwoman; Don Foy, ISMA executive director; and Marianna Irwin, ISMAA president. From left (back row), are Bob Sullivan, ISMA public relations director, and Bob Price and Richard Byrd, Burroughs Wellcome representatives.

Plans that have been in the works for six months will soon be coming to fruition for a statewide program of radio interviews with ISMA physicians.

The program, titled "Your Hoosier Doctor Says . . ." to tie in with ISMA's print series of the same name, is the outcome of a public affairs effort by the Burroughs Wellcome Company, the ISMA and the ISMA Auxiliary.

The radio effort was explained by Bob Sullivan, ISMA PR director, during a recent "information sharing" workshop in Indianapolis. (For more details about the workshop, see "Auxiliary Report" on the opposite page.)

Burroughs Wellcome will supply interviewers with a lengthy list of potential topics, together with suitable questions for discussion. ISMA auxiliaries will serve as the interviewers, using recording equipment supplied at a minimal cost by Burroughs Wellcome.

For maximum convenience, the auxiliaries will conduct the taped interviews in physicians' offices. The tapes then will be distributed to local radio stations.

Similar programs coordinated by Burroughs Wellcome are now being operated in 27 states, with high praise from participating state medical associations.



AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

Record Crowd Attends Statewide Workshop

AN "INFORMATION SHARING" workshop for county presidents and presidents-elect was held in Indianapolis on May 27. Twenty-four counties were represented, with a total of 75 people in attendance! (Flooding prevented five from Vincennes from attending.)

Marge Smith, Fort Wayne, newly elected AMAA vice-president, gave greetings from National and presented an effective seven-minute slide show entitled "Why Belong?"

The day-long program included Mr. Don Foy, ISMA executive di-

rector, giving an overview of ISMA activities; Mr. Robert Sullivan, ISMA public relations director, giving a brief demonstration of the new program, "Your Hoosier Doctor Says"; and an informal discussion period covering county concerns and comments.

Following lunch, our keynote speaker, Dr. Nancy Roeske, in keeping with the Auxiliary's emphasis on "Stress" in the 1981-82 "Shape Up for Life" program, presented a thought-provoking look into the stress points in a phy-

sician's life. Her title, "Jumping the Hurdles and Avoiding the 'Pot' Holes," is perhaps suggestive of its content.

The three newly elected area vice-presidents were responsible for the seminar. Hats off to:

Mrs. Carlos Serna (Donna), Munster, Northern Area vice-president; Mrs. Gyorgy Polcz (Donna), Muncie, Central Area vice-president; and Mrs. Robert Kincaid (Phyllis), Evansville, Southern Area vice-president.



Mrs. Serna



Mrs. Polcz



Mrs. Kincaid

BOOK REVIEWS

The Regulation of Medical Care: Is the Price Too High?

Dr. John C. Goodman. Copyright 1980, Cato Institute, San Francisco, 135 pages. \$5.

This is a very unusual and comprehensive survey and study of the American system of health care, in which the federal and state governments have increasingly assumed a greater role in controlling and regulating the basic functioning of medical care.

No profession in America has been held in higher esteem by the public than has medicine. This opinion still exists but the control is gradually slipping away from doctors.

In 1978 the American Medical Association reported a total of 437,486 licensed physicians in this country. With such enormous support doctors should have a monopolistic control of the particular market, namely, adequate and improved medical care for all people. Unfortunately, efforts of the AMA to curtail the growing invasion of the federal government into overall control of the basic elements that make medical care in this country the best in the world have increasingly met with defeat.

Over the past years proposals to Congress have been directed toward establishing a system of national health

insurance. This plan of socialized medicine, with health care spending directly in the hands of federal regulators, will lead to less efficient medical care at a much greater cost as has been demonstrated in England, West Germany, Norway and Denmark.

The author has shown that the control of medical schools, as to number and size, admissions to the schools through the American Medical Application Service (A.M.C.A.S.), policies of hospital administration, nursing programs and medical insurance has produced a marked increase in the cost of the care. Regulation of certain proven drugs, which are not approved by the drug agency, has resulted in many patients seeking help in foreign countries or through the black market and removes the care from the physician who was the first choice.

Perhaps the medical profession has, in a sense, brought about the present dilemma by failing to police its own members. Certainly, in an organization of so many members, it is expected that a few individuals will infiltrate various societies and hospitals and will not adhere to the rules; some will ignore basic procedures and with stress abuse drugs and alcohol and lose effectiveness in sound medical care, placing the profession in a bad light. After long and expensive training, physicians are licensed to practice medicine in its entirety but, because of the complex areas of medicine today, added training in the specialties is required; although this adds to the public's cost, better medical care is the result.

Doctors, by nature, do their utmost in all situations encountered but still must protect themselves against the increasing threat of malpractice suits. Mistakes do occur, certainly not intentional, but the public is so trained that more and more legal problems will arise. In defense of such proceedings, the attending physician must order many tests and procedures that are not necessary but are a matter of self preservation. The result is higher medical costs!

In his conclusion Dr. Goodman states that "the prospects for a free market for medical care seem bleak." We are rapidly becoming more involved with increased restrictive regulations, more government controls, marked financial exploitation, poorer care and the eventual loser is—the public!

IRVIN W. WILKENS, M.D.
Indianapolis
Internal Medicine

BRENTWOOD PUBLISHING has released *Pulmonary and Blood Gas Laboratories: Laws, Regulations, Standards, and Safety*, authored by Dennis W. Schwesinger, past president, National Society for Cardiopulmonary Technology. It spells out the practical and safe methods of conforming to accepted standards from NIOSH, OSHA, JCAH and AAMI. 275 pages, \$27.95.

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Complications in Vascular Surgery

Edited by Victor M. Bernhard and Jonathan B. Towne. Copyright 1980, Grune & Stratton, New York. 657 pages, with illustrations.

Some surgical complications are unpredictable and therefore unpreventable: e.g., spinal cord damage after abdominal aortic surgery. Most complications, however, and even many surgical deaths, are avoidable. Allowing a vascular surgical patient to die of untreated or unrecognized coronary artery disease, for example, may be hard to justify today. Accordingly, this text advocates liberal preoperative use of coronary angiography and outlines the appropriate cardioprotective measures.

Other indirect complications, like hypercoagulability, heparin induced thrombosis, or graft infections, are also discussed. But most of the book is devoted to an exhaustive analysis of specific complications, their

earliest manifestations, their prevention, and their treatment. Common danger points during dissection, reliable anatomy-identifying maneuvers, falsely negative angiographic appearance, factors affecting the validity of renal vein renin assays, etc.—all these exemplify how far away from empiricism vascular surgery has become.

Particularly scholarly presentations cover difficulties encountered in renal revascularization, cerebrovascular surgery, and sympathectomy. Regarding non-invasive laboratory evaluation, a new category of graft failure is described: the "physiologic failure," where the graft is patent by angiography but the hemodynamics don't improve. Surgical pearls, like the fact that "Surgicel" exerts an antibacterial action while "gel-foam" does not, abound as well. And when all else fails, new drugs, such as Praxilene and Prostaglandin E-1 for "trash foot" are described to help cure iatrogenic disease.

All vascular surgical cognoscenti will thus be exhilarated by this exemplary and admonitory text.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

COUNCIL OF PLANNING LIBRARIANS has published No. 54 in its series of bibliographies. *Regionalized Systems as an Approach to Perinatal Health Care: An Annotated Bibliography* covers the fast-growing mass of literature on neonatology. The material is divided into three sections: clinical applications, regionalized systems, and planning. The bibliography is a result of a search of the National Library of Medicine, the *Index Medicus* and the National Technical Information Service. 81 pages, \$13.

HARPER & ROW has published *American Sign Language: A Comprehensive Dictionary* by Martin L. A. Sternberg. It is the largest, most complete dictionary of sign language ever published for the deaf. It includes 5,543 word entries and cross references, over 8,000 drawings, a 39-page bibliography and seven foreign language indexes. Useful for the deaf, their relatives and friends, social workers, otologists, hearing and speech therapists, schools and agencies for the deaf, audiologists and libraries. \$39.95.

DOUBLEDAY has released *What To Do When You Think You Can't Have A Baby*. It is based on the clinical experience of more than 30 infertility specialists, gathered and collated by Karol White. Ms. White is a prolific writer on subjects involving normal and abnormal sexual relationships, battered women, surrogate motherhood and related social problems. The book, written in lay terms, explains the diagnostic tests done to determine which dysfunctions are responsible. It also discusses the various treatments and lists peer support groups and physicians who perform artificial inseminations or do sterilization reversals. 215 pages, \$11.95.



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FUTURE FILE

Conference on Addictive Behaviors

"Treatment of Addictive Behaviors" is the subject of the Grand Canyon International Conference, to be conducted Nov. 17-21 by the University of New Mexico. It will be held at Grand Canyon National Park, Grand Canyon, Ariz.

Registrations, limited to 170, may be made until Oct. 17. The fee is \$185.

To obtain additional information, as well as registration and housing forms, write to Mary Evilsizer, Bureau of Conferences and Institutes, University of New Mexico, 805 Yale NE, Albuquerque, N.M. 87131.

Allergy Meeting in Cleveland

The Midwest Forum on Allergy, co-sponsored by the Cleveland Allergy Society and the Ohio Allergy Society, will be held in Cleveland Oct. 2-4 at Stouffer's Inn on the Square.

The meeting is accredited for 14 AMA Category 1 credit hours.

For details and hotel reservations, contact Dr. Joseph Kelley, Cleveland Clinic, 9500 Euclid Ave., Cleveland 44106.

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Harvard Offers Two-Week Course

"Program for Chiefs of Clinical Services" will be conducted in the form of an intensive residential course by the School of Public Health of Harvard University Jan. 17-30, 1982.

The two-week course covers a systematic study of critical management issues. The case method of instruction, which actively involves participants in problem analysis and decision-making, encourages participant contributions as a significant and integral part of the learning process. The fee, which covers room, board, tuition and teaching materials, is \$2,700.

Write to Executive Programs in Health Policy and Management, Harvard School of Public Health, 677 Huntington Ave., Boston 02115, or call (617) 732-1142.

Ophthalmological Seminars Offered

Bethesda Hospital of Cincinnati announces two ophthalmological courses. An update for practicing ophthalmic surgeons, "Extra-Capsular Cataract and Implant Seminar," will be conducted Aug. 21-22 at the Stouffer's Inn in Cincinnati. It offers 16 Category 1 credit hours.

"Using Laser in Glaucoma," featuring lectures and laboratory practice, will meet Sept. 12 at the Vernon Manor Hotel, Cincinnati, and will offer eight Category 1 credit hours.

For fees and other details, contact Thomas O'Connor, Bethesda Hospital, 619 Oak St., Cincinnati 45206. Tel: (513) 559-6337.

Abstracts Sought for Lung Conference

In preparation for the International Conference on Occupational Lung Disease, to be conducted by the American College of Chest Physicians, the program committee will accept abstracts for consideration until Sept. 1.

The Conference will be held at the Hyatt Regency Chicago, March 24-27, 1982.

For details, write to Program Committee, ACCP, 911 Busse Highway, Park Ridge, Ill. 60068.

Emergency Physicians Course

Career Emergency Physicians are invited to a Postgraduate Institute conducted by the Wayne State University School of Medicine, Detroit, Michigan, Oct. 12-16. The course is designed for physicians actively engaged in the full-time practice of emergency medicine.

For full information write or call: P.I.C.E.P., Division of CME, 9B-32 DRHUHC, 4201 St. Antoine, Detroit 48201, (313) 577-1180.

Polytomography of the Temporal Bone

The 25th two-day Symposium on Polytomography of the Temporal Bone will be given under the auspices of the Wright Institute of Otology at Community Hospital, Indianapolis, Sept. 26-27.

The symposium meets the criteria for 12 AMA Category 1 credit hours. Fee for the course is \$300.

Subjects to be covered are: "Basic Anatomy of the Temporal Bone" and "Technique of Polytomography of the Temporal Bone" with demonstrations of normal tomograms. Pathological conditions revealed by polytomography such as cholesteatoma, ossicular chain problems, otosclerosis, fractures, foreign bodies, tumors, and congenital anomalies will be shown on original tomograms and the clinical applications will be discussed.

Direct inquiries to The Wright Institute of Otology, Inc., Community Hospital of Indianapolis, 1500 N. Ritter Ave., Indianapolis 46219. Tel: (317) 353-5679.

Colorado Ski and Learn Seminars

Three CME seminars dealing with management enrichment for the health professional will be conducted this winter in popular ski areas of Colorado.

The seminars, arranged by M.E.P., An Education Corporation, will be conducted by noted doctors and management specialists. They comply with IRS rules to make trip expenses deductible. The seminars are scheduled for Snowmass, Colo., during the weeks of Dec. 19 and March 20; and for Vail the week of Feb. 20.

For brochure and lodging information, contact M.E.P., 906 Cooper Ave., Glenwood Springs, Colo. 81601. Tel: (800) 525-3402.

Advanced Echocardiography Program

"Advanced Echocardiography" is the subject of an Extramural Program to be presented by the American College of Cardiology Sept. 9 to 11 at the Hyatt Regency Indianapolis. Krannert Institute of Cardiology is cosponsor. Dr. Harvey Feigenbaum will be the director.

Write to Registration Secretary, American College of Cardiology, 9111 Old Georgetown Road, Bethesda, Md. 20014.

Community Cancer Care Seminar

The Second National Seminar on Community Cancer Care will be conducted Sept. 25, 26 and 27 at the Hyatt Regency, Indianapolis, under sponsorship of the Clinical Oncology Center and Graduate Medical Center of the Methodist Hospital of Indiana. For information write to: Office of Continuing Medical Education, 1604 N. Capitol Ave., Indianapolis 46204.

Chicago Alcoholism Seminar

The most advanced diagnostic and treatment techniques for alcoholism and research advances in the field will be the subject of a seminar conducted by the University of Illinois at the Medical Center Campus in Chicago.

Etiology of alcoholism, the Fetal Alcohol Syndrome, factors of tolerance and dependence, and psychosocial approaches to treatment will be discussed.

For information including fees, time and place write or call Office of Continuing Education Services, 1853 W. Polk St., Room 144, Chicago 60612, (312) 996-8025.

Hospital Staff Leadership Seminar

An AMA Hospital Medical Staff Leadership Seminar will be conducted at the Drake Hotel in Chicago on Sept. 18 and 19. Nature and structure of a medical staff, its functions, its internal organization and its external relationships will be covered. Tuition is \$350—AMA members pay \$250. The theme of the meeting is "Be As Effective in Your Medical Staff Duties as You Are in Your Clinical Duties." For further information, write to Department of Hospitals & Health Facilities, AMA, 535 N. Dearborn, Chicago 60610.



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NEWS NOTES

Physician Performance Field Test

A new program to assess physicians' performance in hospital and office practice will be field-tested in Maryland, Virginia and the District of Columbia by the American College of Physicians, the American Society of Internal Medicine, and the American Hospital Association.

The system, known as Private Initiative in Quality Assurance (PIQuA), previously was tested in four hospitals and now enters into statewide implementation. The program is expected to lead to the successful development of national practice standards for the recertification of physician specialists.

Florida Malpractice Study Results

A study of malpractice suits in Florida reveals that awards are highest in cases that involve injury to a mother during childbirth. According to the study, conducted by the Florida Medical Association, improper anesthesia is the second leading cause of malpractice suits, and injuries to the child during childbirth is the third leading cause.

HHS Takes Over FDA Authority To Make 'Significant Public Policy'

HHS Secretary Richard Schweiker has assumed the FDA's former rulemaking authority in matters involving significant public policy. The past five HEW and HHS secretaries have considered such a change. Schweiker was encouraged by the President's Executive Order on regulatory relief.

He reserves the right to approve all FDA regulations which establish procedural rules applicable to a general class of foods, drugs, cosmetics, medical devices and other subjects of regulation, and also will have authority over those regulations that present highly significant public issues involving the quality, availability, marketability or cost of such products.

Reports, Resolutions Deadlines

Appropriate annual reports as required by ISMA By-laws should reach ISMA headquarters no later than July 10 to allow for necessary processing and pre-press preparation.

Resolutions should reach ISMA headquarters by Aug. 1 to be published in the annual pre-convention (September) issue of THE JOURNAL. Resolutions received after Aug. 1 but before Sept. 8 will be published only in the Delegates' Handbook, which is provided to all convention participants.

The first session of the House of Delegates will meet at 7 p.m., EST, Friday, Oct. 23. The final session will begin at 9 a.m., Monday, Oct. 26. This year's convention will be held at the Sheraton West Hotel, Indianapolis.

All actions of the House will be published in the post-convention (December) issue of THE JOURNAL.

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CME Quiz . . .

CONTINUED FROM PAGE 459

- a. relative increase in percentage of T_G cells
 - b. increased cell count of T_G cells per cubic millimeter
 - c. increased percentage of B cells
 - d. increased percentage of T helper (inducer) cells
10. Multiple sclerosis patients treated for muscle spasticity with Lioresal or Dantrium require:
- a. not infrequent adjustment in the daily dose regarding their neurological symptomatology
 - b. periodic blood tests (serum enzymes, alkaline phosphatases, CBC, urinalysis, fasting and two hour's postprandial blood sugar)
 - c. supervised physical therapy program
 - d. all of the above

Recovery, Inc. Booklet Available

Recovery, Inc. (The Association of Nervous and Former Mental Patients) has been in community service since 1937. There are about 1,000 weekly group meetings in the United States, Canada, Puerto Rico, Ireland and the United Kingdom. The organization, completely managed by its membership, is self-supporting. It exists as a voluntary method of group therapy for patients with mental and nervous symptoms such as depression, numbness, tremors, phobias and palpitations, to mention a few. A booklet which lists the meeting places, many of which are in Indiana, may be obtained free of charge by sending a stamped, self-addressed envelope to Recovery Headquarters, 116 S. Michigan Ave., Chicago 60603.

\$14 Million in Silver Recovered

Silver recovery is big business with the VA. Since 1962 the agency has been recovering silver from dental amalgams, hearing aid batteries and photographic waste; \$31,300 worth of silver was recovered during the first year. However, due to the much higher price of silver and to more efficient recovery methods, the bottom line in 1980 was almost \$14 million recovered at a total cost of less than \$185,000.

Spotting Heart Attack Signals

The Metropolitan Life Foundation was established in 1976 by Metropolitan Life Insurance Company as an aid in the company's campaign on health education. The foundation has published an informative card to describe and illustrate the early body signals of coronary heart attack. The card also describes how to help a victim of heart attack. Copies of the educational card may be obtained free of charge by writing to the Foundation, Box E.S., One Madison Ave., New York City 10010.

Small Business Tax Workshops

The Internal Revenue Service is scheduling one-day Small Business Tax Workshops throughout Indiana for those who want to know more about their business taxes.

Topics include preparing business tax returns, record-keeping, how to withhold and make deposits of federal taxes, tax advantages and disadvantages of sole proprietorships, partnerships and corporations, and how the IRS works (services, tax examinations, appeal rights, penalties).

The Indiana Department of Revenue participates in these free workshops. For information, call Harriet Archer in Indianapolis, 269-6326. Elsewhere in Indiana, call toll-free 1-800-382-9740.



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NEWS NOTES

Here and There . . .

. . . **Dr. Stanley G. Reedy**, Elkhart County health officer, leaves with his family this month for Bangladesh; he will work with the Mennonite Central Committee, a relief agency, until his return in August 1982.

. . . **Dr. Paulino Y. Chan** of Munster has received a one-year appointment as an instructor in orthopedic surgery at Rush Medical College, Chicago.

. . . **Dr. Eugene F. Senseny** has been elected chairman of the Governing Board, Fort Wayne Medical Education Program; **Dr. Dan L. Tritch** was elected secretary.

. . . **Dr. Mortimer Mann**, director of ophthalmology at Wishard Hospital, Indianapolis, has been honored by the Indiana Academy of Ophthalmology for his leadership in the hospital's residency training program for 25 years; **Dr. Fred M. Wilson**, former chairman of the Department of Ophthalmology, Indiana University School of Medicine, was honored for his contributions as a faculty member for 30 years.

. . . **Dr. Robert K. Allen** of Indianapolis has joined the Indianapolis operations of Detroit Diesel Allison as medical director; **Dr. Karl Isenbarger** has been named medical director for the G. M. division's Maywood plants.

. . . **Dr. Lowell H. Steen** of Hammond, AMA board chairman, has been re-elected chairman of the Council of the World Medical Association.

. . . **Dr. Daniel R. Evans** of Valparaiso has been elected chairman of the Indiana Academy of Ophthalmology.

. . . **Dr. Ronald E. Aigotti** of South Bend has been appointed to the advisory council of BetaMED Pharmaceuticals, Inc., Indianapolis; he is a hematologist and oncologist.

. . . **Dr. Sam B. Baker** of Evansville has been elected president of the Deaconess Hospital medical staff; **Dr. Kenneth L. Nachtnebel** was elected vice-president, and **Dr. Robert R. Penkava**, secretary-treasurer.

. . . **Dr. Louis O. Dayson**, a Vincennes cardiologist and Vincennes University graduate, was guest speaker at the graduation ceremony for associate-degree nurses of V.U. in May.

. . . **Dr. Lawrence E. Allen** of Anderson was chosen to present his medical papers before the annual meeting of the American Urological Association, held recently in Boston. Dr. Allen, speaker of the ISMA House of Delegates, has done extensive research on pediatric surgery at the Children's Hospital, Toronto, Ontario, Canada.

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Antalik, Thomas J., Muncie
Bauer, Richard C., Lafayette
Behrend, Frank L., Valparaiso
Bennett, Ivan F., Indianapolis
Bhagwandin, Harry O., Indianapolis
Biegel, Angenieta A., Indianapolis
Billena, Raymundo L., Merrillville
Bilodeau, Richard G., Tipton
Black, Kenneth A., Portage
Christeson, David D., Evansville
Cockerill, Edward M., Indianapolis
Cua, Rosita L., Indianapolis
Daftary, Mostafa, Greensburg
Das, Amal K., Kokomo
Dascoli, Thomas C., Indianapolis
Dones, Antonio B., Fort Wayne
Dubois, Don R., Greenwood
Ellis, Robert F., Munster
Eskew, Philip N., Carmel
Esquerre, Francis A., Bedford
Farrell, John J., Greenfield
Ferguson, James F., Bloomington
Ferguson, William B., Lafayette
Floyd, Malcolm S., Vincennes
Fox, Jack M., Munster

Frazier, Dennis E., French Lick
Furr, Jack D., Hillsboro
Gartner, Joseph C., Jasper
Gatmaitan, Alejandro V., Knightstown
Heck, Larry L., Indianapolis
Hendrix, Charles E., Vincennes
Hickman, Donald M., Fort Wayne
Hilburn, Jeffrey W., Indianapolis
Hillis, Fredrick A., Logansport
Hines, John H., Auburn
Inlow, Paul M., Shelbyville
Jay, James M., Indianapolis
Johns, Janet S., Lafayette
Johnson, Charles W., Indianapolis
Keating, John U., Indianapolis
Kim, Il H., Warsaw
Kolettis, John G., Merrillville
Krueger, John E., South Bend
LaSalle, Robert M., Wabash
Levin, Marc A., Hammond
Lindgren, Ivan T., Aurora
Luxenberg, Edwin R., Logansport
Ly, Lily A., Portland
Masser, Frances J., Jeffersonville

Meredith, Jesse H., Tipton
Molstad, Clay L., Lafayette
Moore, William G., LaPorte
Moss, Harlan B., Indianapolis
Nicholson, Raymond W., Evansville
Pile, Stafford W., Indianapolis
Polydefkis, Dimitri G., Munster
Rademacher, Wade, Carmel
Reimers, Roger A., Bloomington
Richardson, Joseph D., Rochester
Riley, Henry S., Madison
Rusher, Merrill W., Fort Wayne
Smith, Harold E., Newburgh
Steffy, Ralph M., Portland
Turkewitz, Lanny J., Elkhart
Ullom, Ralph B., Indianapolis
VanValer, Constance R., Greenwood
Vincent, John P., Greensburg
Voskuhl, William L., Charlestown
Wahle, William M., Indianapolis
Wanner, Loren J., Bluffton
Ward, Robert A., Tell City
Waymire, William M., Franklin
Woodward, William M., Westville
Yast, Charles J., Merrillville

Here and There . . .

. . . **Dr. Patrick A. Dolan** of Indianapolis and **Dr. John A. Knote** of W. Lafayette have been elected Fellows of the American College of Radiology.

. . . **Dr. Guillermo Gonzalez** of Fort Wayne has been named a diplomate of the American Board of Neurological Surgery.

. . . **Dr. Russell J. Dukes** of Bloomington and **Dr. John L. Cullison** of Muncie are newly elected Fellows of the American College of Physicians.

. . . **Dr. Sterling P. Tignor** of Kokomo has been appointed a clinical professor of surgery (plastic surgery) at the Indiana University School of Medicine.

. . . **Dr. Bryce B. Rohrer** of Walkerton discussed drug addiction during an open meeting of Families Anonymous in April.

. . . **Dr. William M. Wahle**, chief of pathology at St. Vincent Hospital, Indianapolis, has been elected vice-president, Central Indiana Regional Blood Center.

. . . **Dr. Arthur B. Snowwhite** and **Dr. James D. Reid**, Marion ophthalmologists, have been named Doctors of the Year by the Grant County chapter of the American Association of Medical Assistants, Indiana Society.

. . . **Dr. Donald R. Sugarman** has been elected president of Fort Wayne Public Television, Channel 39.

. . . **Dr. Alvin L. Henry**, a Columbus ophthalmologist, has been re-elected ISMA's representative to the Blue Shield board.

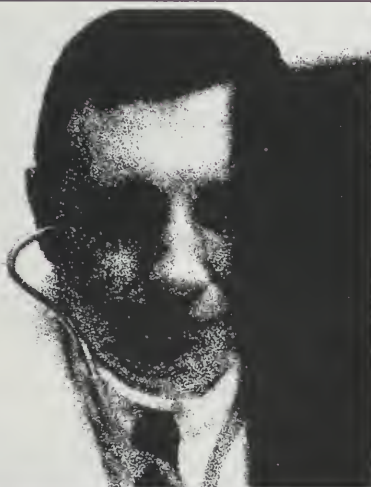
. . . **Dr. Jon W. Holdread** of Columbus has been elected to a second term on the Council of the Indiana Psychiatric Society.

. . . **Dr. James M. Fink** of South Bend addressed the Cope Club in May on "Lung Disease: Asthma, Bronchitis and Emphysema."

. . . **Dr. Alfred J. Dainko** of East Chicago has been presented the 1981 St. Joseph the Worker Award by Calumet College; he is a surgeon at St. Catherine Hospital.

. . . **Dr. Arnold W. Kunkler** of Terre Haute has assumed duties as president of the Indiana Chapter, American College of Surgeons; **Dr. James A. Madura** of Indianapolis was elected president-elect, and **Dr. James A. Crossin** of Indianapolis, secretary-treasurer.

. . . **Dr. Maurice E. Rougraff** of Indianapolis has become vice-president and medical director of the American United Life Insurance Co.



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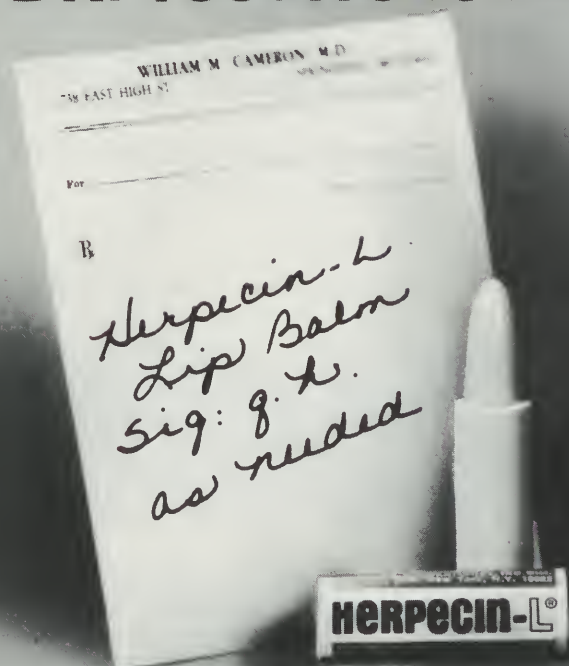
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OBITUARIES

Martha L. C. Butler, M.D.

Dr. Butler, 64, the wife of Dr. John O. Butler, an Indianapolis internist, and mother of Dr. Gerold T. Butler, an Indianapolis pediatrician, died April 30 at home.

A 1942 graduate of Indiana University School of Medicine, she was believed to have been the first woman physician in Indiana. A World War II Army veteran, she practiced medicine in Farmersburg until she and her husband moved to Indianapolis in 1950. At that time she discontinued her practice to raise the couple's family—seven children in all.

Dr. Butler was active in PTA affairs and in the Bucks for Books project in Perry Township, which raised money to buy books for a new library in Southport. Former Governor Otis R. Bowen named her a Sagamore of the Wabash last year.

Carl M. Davis, M.D.

Dr. Davis, 84, a retired Porter County general practitioner and anesthesiologist, died May 1 at St. Elizabeth Hospital, Lafayette.

He was a 1926 graduate of Indiana University School of Medicine.

Dr. Davis, coroner of Porter County for eight years during the 1930s, practiced medicine in Valparaiso until he retired in 1973. He had moved to West Lafayette two years ago. He was a member of the ISMA Fifty Year Club and of the American Society of Anesthesiologists.

Meredith B. (Pat) Flanigan, M.D.

Dr. Flanigan, 68, an Indianapolis anesthesiologist, died April 28 while on a fishing trip at Smithville, Tenn.

A 1940 graduate of Indiana University School of Medicine, he had been on the staff of Methodist Hospital the last 35 years.

Dr. Flanigan, an Army veteran of World War II, was a member of the American Society of Anesthesiologists and the International Anesthesia Research Society. He was certified by the American Board of Anesthesiology.

William G. Grosso, M.D.

Dr. Grosso, 67, an East Chicago physician, died April 30 at St. Catherine Hospital, E. Chicago.

He received the M.D. degree in 1937 from Loyola University. He had served 40 years on the staff at St. Catherine Hospital and was a past president of its medical staff.

Dr. Grosso, an Army veteran of World War II, was a member of the American Academy of Family Physicians. He had served five years as an ISMA delegate from the Lake County Medical Society.

Charles A. Hunter, Jr., M.D.

Dr. Hunter, 58, professor and chairman of the Department of Obstetrics and Gynecology, Indiana University School of Medicine, died May 6 at his home in Indianapolis.

He received the M.D. degree in 1946 from the University of Kansas.

Dr. Hunter, internationally recognized for his contributions as an educator and innovator, was a director of the American Board of Obstetrics and Gynecology and had served that board as director of evaluations for eight years.

His numerous memberships included the American College of Surgeons and the American College of Obstetrics and Gynecology.

Heracleo I. Matheu, M.D.

Dr. Matheu, 65, director of clinical services at the Otis R. Bowen Center for Human Services in Warsaw, died April 17 at St. Vincent Hospital, Indianapolis.

He received the M.D. degree in 1942 from the University of Santo Tomas, the Philippines.

Dr. Matheu, formerly superintendent of the Logansport State Hospital, was a member of the American Psychiatric Association and was certified by the American Board of Psychiatry and Neurology.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

Joseph Finneran, M.D.
Frederick D. Randall
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H. E. Raffensperger
Hwei-Ya Chang Loh, M.D.
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Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions, a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly, debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients. Some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested as a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.



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EMERGENCY MEDICINE position available: Emergency Physician to join professional group practicing in superior emergency department in Hammond, Indiana. Contact Dr. Robert F. Guthrie at (312) 474-0014 or Emergency Care, S.C. at (312) 327-0777.

RETIRED PEDIATRICIAN—Let's presume that you are still interested in your field but have given up active practice. We are much in need of your wisdom and experience as advisor and counselor to our youth health magazines (8 of them) which feature health and life improvement at each level of elementary school. Do get in touch. Contact Cory SerVass, M.D., 317-636-8881.

AVAILABLE July 9, 1981, for solo or group family practice. Well trained in Ob/Gyn, medicine and surgery. Any size community. Will consider E.R. or house-physician position. I have Indiana license. Call Dr. Thakkar, (512) 881-4000 days, or (512) 993-2705 evenings.

EMERGENCY MEDICINE—TERRE HAUTE: Directorship opportunity available 7-1-81 in modern, moderate volume trauma center with excellent specialty and subspecialty support. This metropolitan community offers many educational, recreational, and cultural amenities. Annual minimum guarantee plus production based bonus (i.e., fee-for-service). Paid professional liability insurance, flexible scheduling with no on-call involvement. For details, send credentials in confidence to John Kutchback, 970 Executive Parkway, St. Louis, Mo. 63141 or call toll-free 1-800-325-3982.

POSITION now available in the Department of Internal Medicine for physician with subspecialty interest. 50-man multispecialty clinic in ideal location in southern Wisconsin. Contact R. E. Hassler, M.D., The Monroe Clinic, Monroe, Wisc. 53566. Tel: (608) 328-7000.

FOR VACATION RENTAL: 1,500 sq ft luxury townhouse close to ocean, swimming, tennis, golf; in Palmetto Dunes, Hilton Head Island, S.C. \$400 per week, accommodates six. Phone (812) 275-2800.

GET TAX DEDUCTIONS from Real Estate investments. Retiring physician advising best way to keep earnings is through Real Estate investments. Excellent opportunity to purchase from owner. Call 317-357-4129.

FULLY EQUIPPED medical building for sale or rent. Located in Bunker Hill, Ind., near Kokomo. Address all inquiries to Ruben R. Gaboya, Estate, Box 577, Bunker Hill, Ind. 46914.

EMERGENCY MEDICAL POSITIONS—Emergency Consultants, Inc. has select opportunities in emergency medicine available on a locum tenens or full time basis. Positions in resort and recreational areas offer flexible scheduling, competitive hourly rates, and excellent benefits including malpractice insurance. Our organization accommodates professional and personal physician goals by providing a wide variety of locations with varying patient volume. For further information, contact Emergency Consultants, Inc., Suite 121, 2240 South Airport Road, Traverse City, Mich. 49684. 1-800-253-1795, or in Michigan 1-800-632-3496.

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Charges for commercial announcements are:
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Address: THE JOURNAL, Indiana State Medical Association, 3935 N. Meridian St., Indianapolis, Ind. 46208.

Deadline: First working day of month PRECEDING month of issue.

WHAT'S NEW?

CONTINUED FROM PAGE 408

HOSMER DORRANCE, INC. is marketing "Carefree," a new concept in prostheses for mastectomy patients. The new device originated in Germany and is said to represent the latest in material technology and structural design. Available in a full range of sizes and in light and dark skin tones.

SYNTEX has FDA approval for expanded indications for Naprosyn®. It is now approved for treatment of juvenile arthritis, ankylosing spondylitis and acute gout, in addition to its previous claims for osteoarthritis and rheumatoid arthritis.

A NEW LABORATORY TEST SERVICE called Myotrac, designed to identify chest pain patients at imminent risk of myocardial infarction, is offered by Laboratory Procedures, a subsidiary of Upjohn. The newly discovered enzymatically *inactive* form of creatine kinase (CK) is measured by radioimmunoassay. Creatine kinase is released by cells suffering from severe injury or necrosis. Current tests measure only active enzyme, which accounts for only 20% of the total CK. The new test measures the inactive portion.

DU PONT will market a new system that will detect septicemia 12 to 24 hours sooner than conventional methods. The system consists of a four-inch 8 ml. evacuated sterile tube containing chemical additives and a patented agent which lyses red cells. There are special stoppers at both ends. The specimen is injected into one end and the tube is centrifuged for 30 minutes. Entrapped bacteria are withdrawn through the other end and allowed to grow.

JOHNSON & JOHNSON has introduced DELTA-LITE™ Synthetic Casting System. It combines the benefits of a strong, durable, lightweight cast with advanced synthetic casting materials. The finished cast is radiolucent, porous, water-resistant and has a pleasing white appearance. In addition to DELTA-LITE™ Casting Tapes, the system includes DELTA-LITE Splints, DELTA-NET™ Stockinet and DELTA-ROL™ Cast Padding.

BIO/DATA CORPORATION announces the first commercially available kit for the specific identification and diagnosis of von Willebrand Syndrome. The vW Factor Assay™ kit (Ristocetin Cofactor) contains lympholized human platelets, eliminating the time normally required to prepare the standardized platelet suspension. Also included are Ristocetin, reference plasma, abnormal control plasma, and diluent. The kit may be used on any aggregometer. Each kit contains material for 10 determinations.

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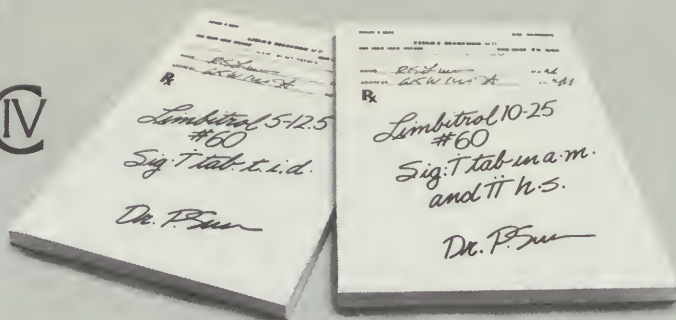
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tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)



in anxious depression,

SPECIFIC FOR THE NONPSYCHOTIC PATIENT

Fits the picture of anxiety/depression correlation

Most patients with a mood disorder have a mixture of anxiety and depression. One clinician¹ found a correlation of 0.7 in anxiety and depression scores; another² has estimated that 7 of 10 nonpsychotic depressed patients are also anxious. For the dual symptomatology of anxious depression, Limbitrol provides dual medication.

More appropriate for the nonpsychotic depressed and anxious patient

Limbitrol contains both amitriptyline, specific for symptoms of depression, and a benzodiazepine, specific for the symptoms of anxiety. Thus it is a better choice than other dual agents for anxious depression that contain a phenothiazine, a class of antipsychotic drugs less specific for anxiety and now generally avoided in nonpsychotic patients.^{2,3}

Avoids the risk of tardive dyskinesia carried by the phenothiazine combinations

The causal relationship between the phenothiazines and other extrapyramidal side effects, including tardive dyskinesia, is well established. In contrast, the reported incidence of these adverse reactions with Limbitrol or either of its components is rare.

References: 1. Clagham J: *Psychosomatics* 11:438-441, Sept-Oct 1970. 2. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME. New York, Appleton-Century-Crafts, 1977, p. 316. 3. Baldessarini RJ, Tarsy D: Tardive dyskinesia, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascia A, Killam KF. New York, Raven Press, 1978, p. 999.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety. **Contraindications:** Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, over-sedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.



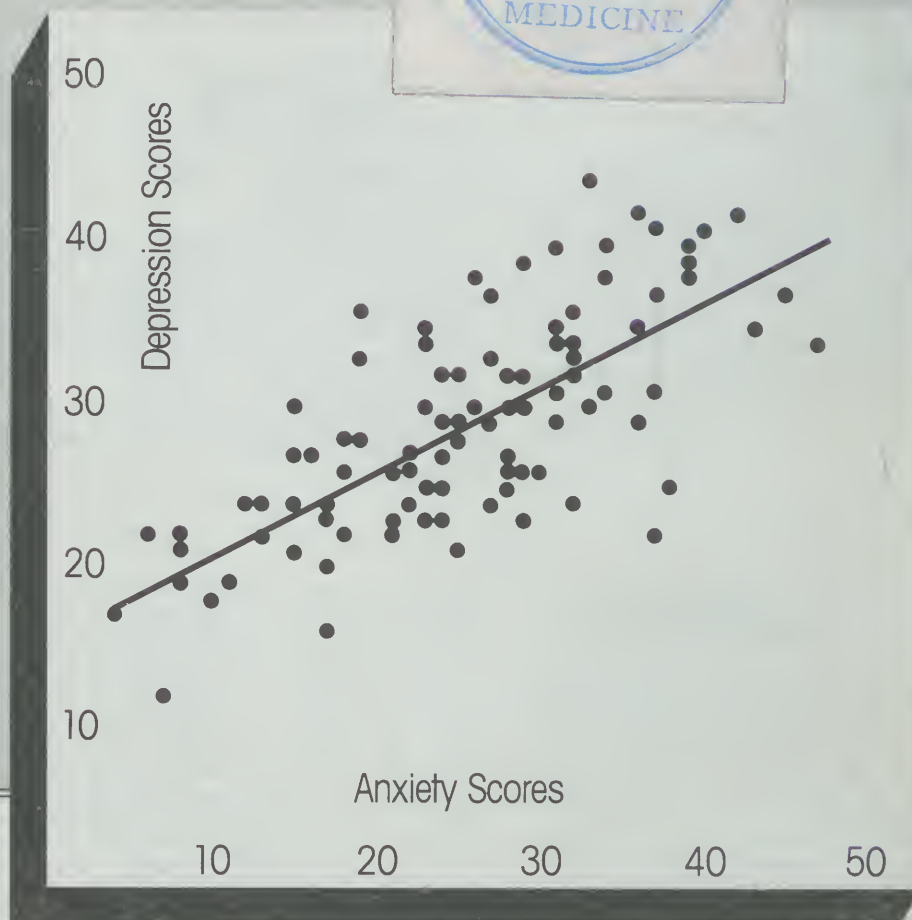
ROCHE PRODUCTS INC.
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MORE DEPRESSION MEANS MORE ANXIETY...



The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scale in 100 nonpsychotic psychiatric patients. The Coefficient of Correlation is 0.7. As depression increased, so did the anxiety levels.

—Adapted from Claghorn J¹



A key reason why

MORE PHYSICIANS ARE CHOOSING LIMBITROL®

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

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1. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970

Please see summary of product information on inside cover.

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August 1981 • Vol. 74 • No. 8

The JOURNAL

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INDIANA'S FIRST MONOPLACE HYPERBARIC OXYGEN CHAMBER
Inside: Contemporary Indications for Using HBO

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche)® , please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect.

Adults: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

WHAT'S NEW?

SIEMENS GAMMASONICS reports a new inexpensive monitoring device which detects the presence of mercury vapor in dental offices and determines whether exposure levels are too high. The handling of mercury and amalgam sometimes creates toxic levels of mercury. The device is sealed and returned to Siemens for analysis. It is especially valuable for monitoring personnel who work in the office daily.

THE HARLECO DIVISION of EM Industries announces the introduction of Hemacolor™, a new, quick, differential blood smear stain. Slides are prepared in less than 30 seconds. In addition to hematology stains, the new product may be used to stain microorganisms and spermatozoa.

THE 3M COMPANY announces a new brochure that illustrates and describes 33 different kinds of Steri-Drape surgical drapes. A variety of sizes and shapes and ring apertures afford maximum protection against contamination at the operative site. The brochure may be obtained, free of charge from 3M, Dept. SU81-35, Box 33600, St. Paul, Minn. 55133.

CENTURY MANUFACTURING is offering a newly designed LIC Turnover Bed for hospitals and nursing homes. The mattress and the frame supporting are divided longitudinally into three segments of which the center segment is slightly the largest. The segments are hinged and will bend in both directions in relation to its neighbor, thus creating a trough-like longitudinal crease either on one side of the bed or the other. Nurses may turn unconscious patients by push button control. Conscious patients may turn themselves. In addition, the bed can be adjusted into 12° positive trendelenburg and 8° negative trendelenburg without altering the turning ability.

CAMBRIDGE Research and Development has perfected a new radiological device and has formed a separate company to market it. Called Cardiac Strobe, the unit attaches to an ordinary x-ray machine and displays on a single x-ray film the actual excursion of the heart wall as it pumps. The x-ray shows a composite image of the heart, timed to capture the heart wall movement from its fully expanded to its fully contracted state. There is no increase in radiant energy employed.

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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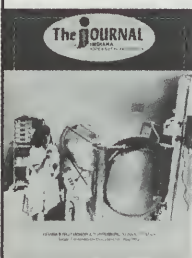
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ABOUT THE COVER

Barbara Manley, R.N., baromedical clinician at Community Hospital, Indianapolis, monitors a patient being treated in a monoplace hyperbaric oxygen chamber, which provides a 100% oxygen atmosphere. For details, see "Contemporary Indications for the Use of Hyperbaric Oxygen" in this issue. PHOTO BY TOM WAGER.



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MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis

White Snakeroot: 19th Century Cause of Milk Sickness

"Nemesis for the unwary."—That's the way Dr. W. D. Snively and Donna Helmer characterize the syndrome of inappropriate secretion of antidiuretic hormone in their article of that title, found elsewhere in this issue. Nemesis for the unwary is an appropriate characterization of yet another condition of severe electrolyte imbalance, for which Dr. Snively also is an authority. This second disease, not uncommon in 19th century Indiana, rarely occurs at present. Although this disease would be recognized and treated as a severe acidosis, its etiology might well be missed. This disease, milk sickness, results from drinking milk from cows who have fed on white snake-root. The clinical features include abdominal pain, nausea, vomiting, intense thirst, constipation (bowel paralysis), severe weakness and subnormal temperature.

This sickness was prone to occur during the hot summer months, when the grass of the pasture land turned brown. If fences did not restrain their activity, the cattle would roam to wooded areas, and forage there for things to eat. The white snakeroot, *Eupatorium rugosum*, grows naturally at the edge of the wood, in light to moderate shade, and would be one of the first plants the hungry cattle would encounter.

Milk sickness caused the death of Abraham Lincoln's mother, as well as that of numerous other pioneers in Indiana, Ohio and Illinois.

Dr. Snively has written extensively on this subject. He reports that the toxin causing the disease (tremetol) was not identified until 1928, and the physiological basis for the disorder was not determined until 1963. He reports that a Mr. John Rowe, of Fayette County, Ohio, performed a common-sense



experiment with cattle back in 1838, and demonstrated quite convincingly (by today's standards) that milk sickness was caused by cattle feeding on the white snake-root. This study, however, was ridiculed by Dr. Daniel Drake (who thought poison ivy was the culprit), and the causative agent remained unknown until the 1920s.

In her book, *Manual of Weeds*, (the McMillan Company, 1921), Ada George reports a sudden outbreak of the disease in Illinois in 1908, which was studied by the Department of Poisonous Plant Investigations at Washington (Bulletin No. 12, Bureau of Plant Industry, U.S. Department of Agriculture). She indicates that the white snake-root was tested in several species of animals, and that "the plant stands acquitted." It was only later that these studies were shown to be in error.

Historical interest attaches to the

white snakeroot because of its importance to pioneer medicine. I became interested in the plant after reading Dr. Snively's article in the *Indiana Medical History Quarterly* (Vol. I, No. 2, 1974). With the help of a botanist friend, Mr. Errol A. Evans, I obtained a bucket of plants, which I placed on the north side of the Old Pathology Building. They have now spread naturally down the entire length of the building. They are restricted naturally in their growth to the area of the building's shadow. The plants grow to a more or less uniform height, and the glossy leaves create a pleasant appearance. The plants are covered with clusters of small white flowers in the Fall, and require absolutely no care. They die to the ground in freezing weather, but are quite hardy and return again with the first sign of Spring. They have generated a lot of visitor interest during the past several years.

EDITORIALS

Patent Term Restoration: Bottom Line

"From the public's point of view," PMA President Lewis A. Engman recently told a health subcommittee, "the bottom line is not patent lives or research investments. It is new medicines. In 1960, a \$3.5 billion industry with effective 16-year patent lives produced 50 new medicines. In 1980, a \$22 billion industry with effective patent lives of less than 10 years produced only 12 new medicines."

Engman declared "The public is the loser. The sick—the people with diseases for which medicines have not yet been developed—they have been the real victims of lost patent life.

"It should be emphasized, Mr. Chairman, that the situation I describe is not the product of anyone's design. No one could have anticipated that a testing and approval process that took about two years in the early 1960s would have taken seven to 10 years by 1980. Reduced patent protection for drugs has evolved by accident, and until recently with little notice. We have been living—all of us who have an interest in the quality of health care—with a very large and very expensive accident.

"The bill we are here to discuss today will help correct that problem. By restoring to pharmaceutical patents the time consumed by the approval process, the bill will help reverse the decline in research incentives. It will make investment in drug therapies more competitive with alternative uses of corporate resources. It will stimulate discovery and introduction of more and

better new medicines. And it should produce consumer savings in two ways—by ensuring more rapid entry of new competing products, and by promoting the development of new drugs that displace far more expensive therapies such as surgery."

The 'Urban Cowboy Syndrome'

An Arizona hospital reports a significant increase in assorted injuries after four mechanical bulls were installed within a two-mile radius. There is a false assumption adopted by the public that "The Lord looks after drunks" and that most of the injuries to "riders" involved pride mostly. The "Annals of Emergency Medicine" contains the Arizona report which testifies to the contrary.

The fact that mechanical bulls are almost always located in saloons probably explains why so many people who should know better are scattered around the joint with regularity. The universal observation that whiskey often dulls common sense and increases what the customer thinks is courage may and probably does have a lot to do with the popularity of the "sport".

The authors of the article have cared for an epidemic of serious injuries. They advise caution but, philosophically, concede that the public will just have to learn by experience.

It might be well to attach a "Surgeon's General" warning to every mechanical bull situated within ten feet of a drink of whiskey.

THE INDIANA STATE MEDICAL ASSOCIATION

1981 Annual Meeting—Oct. 23-26

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3—Richard G. Huber, Bedford	Oct. 1982
4—Mork M. Bevers, Seymour	Oct. 1983
5—Paul Siebenmorgen, Terre Haute	Oct. 1981
6—Davis W. Ellis, Rushville	Oct. 1982
7—Donald C. McCallum, Indianapolis	Oct. 1983
7—John G. Pantzer, Indianapolis	Oct. 1981
8—Jack M. Walker, Muncie	Oct. 1981
9—John A. Knots, Lofoyette (Chairman)	Oct. 1982
10—Charles D. Egnatz, Shererville	Oct. 1983
11—Herbert C. Khalouf, Marion	Oct. 1981
12—Michael O. Mellinger, LoGrange	Oct. 1982
13—Donald S. Chomberlain, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gourieux, Evansville	Oct. 1982
2—Rolph W. Stewart, Vincennes	Oct. 1983
3—Eli Hollal, New Albany	Oct. 1983
4—William E. Cooper, Columbus	Oct. 1982
5—Benny Ko, Terre Haute	Oct. 1982
6—Don W. Hibner, Richmond	Oct. 1981
7—John D. MacDougall, Beech Grove	Oct. 1982
7—H. Marshall Trusler, Indianapolis	Oct. 1982
8—Richard L. Reedy, Yorktown	Oct. 1982
9—Mox N. Hoffman, Covington	Oct. 1983
10—Walfred A. Nelson, Gary	Oct. 1982
11—Edward L. Langston, Flora	Oct. 1983
12—	Oct. 1983
13—John W. Luce, Michigan City	Oct. 1982

Diabetes Discovery May be Promising

The discovery by Upjohn researchers of a unique protein in the liver of spontaneously diabetic Chinese hamsters may be the cue that will ultimately define the basic lesion of diabetes. It has been known for quite some time that some diabetic patients produce sufficient insulin but cannot handle sugar properly. The country hunch has been that the metabolic error responsible for this was located in the liver. The unique protein was found in liver cells. So far, the protein has not been found in livers of diabetic mice or human diabetics. Further research is promised.

New Legionnaires' Diagnostic Test

Researchers at I. U. School of Medicine have demonstrated that a specific substance is excreted by the kidneys in patients with Legionnaires' Disease. This substance is susceptible to identification, within a short time, by use of radio-immunoassay methods. The new test is applicable for infections with the serogroup 1 of the *Legionella pneumophila*. Serogroup 1 is the most common group identified in patients. The new test allows a diagnosis to be made early in the course of the disease when treatment is the most effective.

Administering Cancer-Fighting Drugs

Research at the Lobund Laboratories of Notre Dame University demonstrates that chemotherapeutic agents do not create debilitating side effects or may be greatly lessened in such effects if introduced continuously in uniform small doses. Small drug-filled plastic tubes with microscopic pores may be introduced into laboratory animals with apparent beneficial effects on malignancies. Cytosin, when used in a controlled study of prostatic cancer in rats, showed remarkable clinical results. Dr. Morris Pollard, director of Lobund, states that much further work must be done before the method is validated for human therapy.

Godspeed, Doctor Loh . . .

Dr. Wei Ping Loh, who has been pathologist for the Methodist Hospital of Gary since 1956, has accepted a position as clinical professor at the State University of New York's Downstate Medical Center in Brooklyn, New York. Dr. Loh, known for his very busy life style with dozens of medical scientific and community projects, is recovering from a coronary occlusion and, in his new work, will seek to achieve a quiet and restful schedule. He has been a member of the Editorial Board of THE JOURNAL for 16 years and leaves Indiana with many expressions of gratitude for his excellent journalistic work and with many, many wishes for a happy and restful tenure in his new challenge.

Child Passenger Injuries

The American Academy of Pediatrics continues its campaign of education on the subject of protection of infants and small children in automobiles by publishing a study of children admitted to hospital after being injured without a safety seat and safety belt. Twenty-three per cent of such injuries occurred in a "no-crash" event.

A substantial percentage of children are injured when the car suddenly stops or swerves; a collision is not necessary. Most of the "non-crash" incidents are not due to negligence on the driver's part—many of them are due to sudden actions of the careful driver to avoid collision with a negligent driver in the other car.

The article points out that the air bag, which will be available in the future, won't prevent injury in "non-crash" conditions, since the car must be in sudden contact with another object in order to actuate the air bag.

The Academy continues its effort to prevent child passenger injuries by promoting the use of child safety seats through the "The First Ride . . . A Safe Ride" campaign.

LETTERS

Pulmonary Function Tests

Patients with pulmonary impairment may be evaluated clinically to determine fitness for air travel or for residence in mountainous elevations.

Ambulatory oxygen therapy is applicable for certain degrees of pulmonary impairment in patients who wish to travel by commercial airlines.

Individuals who do not retain carbon dioxide may use the standard airline mask without risk. Special face masks are available for patients who are carbon dioxide retainers.

The Division of Pulmonary Medicine of the Department of Medicine of Indiana University Medical Center will, on referral by the primary physician, perform pulmonary function tests and altitude chamber tests to determine the ability of the patient to travel by air safely and to determine whether supplementary oxygen is recommended and, if so, by what type of face mask.

Patient referrals may be arranged by calling me at (317)630-7596 or by writing.

Robert B. Stonehill, M.D.,
Professor of Medicine,
Chief, Pulmonary Disease Service,
Wishard Memorial Hospital,
1001 W. 10th St.,
Indianapolis, Ind. 46202

Medical Malpractice Study Commission

A Report

The following summary is based upon a report of the Medical Malpractice Study Commission, prepared by Dr. Gilbert M. Wilhelmus for presentation during a recent meeting of the ISMA trustees.

Governor Otis R. Bowen appointed the Medical Malpractice Study Commission in 1975. Dr. Gilbert M. Wilhelmus, Evansville, was the original chairman of the Commission and has continued in that leadership ever since.

At its founding the Commission was charged with duties as follows:

- To study the scope and extent of the malpractice problem.
- To determine the reasons for the increase in malpractice claims.
- To study the effects of the rise in malpractice claims on health care providers.
- To investigate the influence of defensive medical practice on the cost of medical service and the premium cost.
- To discover the effects of claims on patients.

In addition, the Commission has studied the operation of the malpractice statute and has recommended amendments to the General Assembly. The amendments, made a part of the law as a result of experience, include those which have increased the types of persons and entities which qualify as health care providers, one that has made self-insurance available, and another which has placed a time limit on the screening panel.

Dr. Wilhelmus recently reported on the record accumulated by the Malpractice Act since its passage.

At present the Indiana Malpractice Act (PL 146) covers 6,935 physicians, 2,181 dentists, 11,310 nurses and 125 hospitals.

From July 1, 1975 to Jan. 1, 1981, there have been 1,149 complaints filed with the Insurance Commissioner against health care providers. Of this number, 330 have requested the formation of the medical review panel and 128 panels have rendered an opinion. The opinions are classified as follows according to each year's experience:

- In 1975 no opinions were filed.
- In 1976 one opinion was received. It was to the effect that the case did not involve malpractice.
- 1977—Three opinions were rendered, one for malpractice, two for no malpractice.
- 1978—18 opinions were given. Three were for malpractice, 14 denied malpractice and one was ruled as depending on a material issue of fact for which a jury verdict was necessary.
- 1979—38 opinions were rendered. Six were for malpractice, 31 for no malpractice and one involved a material issue of fact.
- 1980—68 opinions were issued. Five were for malpractice, 52 for no malpractice, 10 in which the opinion was not definite enough for a ruling, and one material issue of fact.

The Indiana Department of Insurance maintains a Patient Compensation Fund which is formed from the 10% surcharge collected from all insured persons and facilities. This fund is used to compensate patients whose awards exceed the \$100,000 maximum award possible under private insurance policies.

Early in 1981, 11 claims were settled from the Patient Compensation Fund, representing the awards in 1980 which were in excess of \$100,000.

Collections to the Fund in 1980 together with interest earned on deposits amounted to a total 1980 revenue of \$3.2 million. The 11 claims exceeded this revenue by \$700,000, which sum is more than balanced by the accumulation in the Fund during previous years in which claims were less than the annual revenue.

The Governor's Commission has asked the Insurance Commissioner to conduct an actuarial study of the Patient Compensation Fund to determine whether a larger surcharge may be necessary in the future to maintain solvency in the Fund. If such action is needed the Governor's Commission will recommend the proper amendment to the General Assembly.

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High-Low: Drug and Alcohol Abuse

Editorial

IRVIN W. WILKENS, M.D.
Indianapolis

THE TITLE REPRESENTS the level of persons who are addicted to alcohol and drugs. The increased abuse in both areas is growing at an alarming rate.

The "high" represents the effect that beginners are hoping to experience, and the "low" is the state in which many of the previously "high" receivers develop.

This over-indulgence in drugs and alcohol has existed for many years, but each year it has become more prevalent among the youth of this country as well as the adult population. We have had the so-called degenerated alcoholic for many generations and the public has accepted it as a way of life for certain people. However, it has increasingly dropped lower in the age level until, now, it is not uncommon to dip into the pre-teens age bracket.

It all seems to be part of the youth to participate in "what everyone else does" and to become one of the "gang." The "high" state is an escape from the dull normal living and produces a rapid mental and physical deterioration which leads to a criterion "low." In this state, the individual is a living robot with no regard for himself, his surroundings, or normal and real behavior.

The author, an internist, is a consulting editor of THE JOURNAL.

The so-called hard drugs—most of which are usually opium derivatives such as heroin and cocaine, but also the blues (Phenergan), the T's (Talwin) and many more—are used extensively. Besides breaking down the person's resistance, they are extremely expensive. Many times the cost is \$50. to \$100. daily. The habit then becomes a frightening dilemma and often leads to violence, both to the person himself or to other individuals.

The so-called tranquilizers—Phenobarbital, Valium, Librium, Thorazine, Compazine, and many others—can produce severe addiction and as the dosage is increased, by demand, the addicted person becomes less cooperative, has difficulty with normal living and if the process continues, rapidly reaches the *low* area.

I recently had the privilege of observing the management of a local detoxification center in this city and was alarmed at the number of alcoholics in the 13- to 20-year-old bracket. The usual consumption was $\frac{1}{4}$ to $\frac{1}{2}$ of a fifth of whiskey daily with hard drugs or tranquilizers to maintain a level adequate to relieve the anxiety and tension associated with the alcohol abuse. I also noted that no age was excluded, even to the age of 71 years. The number of professional persons admitted was quite high and, likewise, executives, with good positions, were victims of the abuse. Treatment usually is completed in 21 days, and the readmission in this facility is about 30% to 40% against the national average of 70% to 80%. This disease, therefore, is lagging in the cure category and is basically a severe problem.

Marijuana smoking also has increased year by year and will eventually become a serious problem, as has drug and alcohol abuse. Greater effort to control this by public education, stricter laws and research are needed before the nation becomes buried in its own insufficiency.

1981-1982 Membership Roster

Additional copies of the 1981-1982 Membership Roster of the Indiana State Medical Association, published and distributed in April, still are available for purchase through the ISMA Membership Department.

The charge to ISMA members, including post-

age and handling, is \$10 per copy. The fee for non-ISMA members is \$20. Checks should be made payable to the Indiana State Medical Association. Orders should be placed through the ISMA Membership Department, 3935 N. Meridian St., Indianapolis, Ind. 46208.

PAIN AND TENSION...

Double fault for weekend warriors

ACE THE ACHE with

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(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Meclizol, or amphetamine,

may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group. **PRECAUTIONS:** Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS. The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Bob Sullivan
Director, Public Relations



Joyce Wolf
Public Relations Assistant

Meet Your ISMA Staff

BOB SULLIVAN, a retired Navy chief journalist, joined the ISMA staff in November 1974 as director of public relations. He soon was immersed in the legislative arena, with passage of Public Law 146, The Patients' Compensation Act, as the main public relations objective. Since then he also has staffed the Commissions on Legislation and Medical Services, the Subcommissions on Insurance, Aging, and Sports and Medicine, the Indiana Medical Political Action Committee, the Ad Hoc Committee on Immunizations, the Data Consortium Committee, and the Voluntary Effort Committee.

When asked to assume responsibility for the Association's insurance programs, Bob volunteered to attend an insurance school and subsequently passed the state insurance examination. He now is licensed by Indiana as an insurance agent.

Today Bob is back to handling ISMA's public relations programs, with the able assistance of Joyce Wolf. In addition, he still staffs the Subcommission on Insurance and administers insurance activities for the Association.

The 45-year-old native of Holyoke, Mass., received an Associate of Science degree in Accounting from Vincennes University in 1972 and is one semester short of a BA degree in Journalism.

Bob, recipient of two "silver anvil" awards from the Public Relations Society of America and of several military newspaper editing awards, spent the last five years of his Navy career as a journalism instructor at the Defense Information School, Ft. Benjamin Harrison, Ind.

An avid sports enthusiast, Bob is manager of a Little League team in Warren Township. He personally participates in golf, bowling, fishing and an occasional snow skiing trip.

He is a member of Travelers Protective Association, Moose Lodge, Veterans of Foreign Wars, and the Indianapolis Press Club.

Bob and his wife Dorothy live in Indianapolis with their two sons, Bobby and Mike.

SINCE JOINING ISMA a little over a year ago, Joyce has had the opportunity to put her diverse interests and background to good use. With a bachelor's degree in English and a master's degree in biology, she's held positions from hospital lab research with immunosuppressive drugs to environmental quality field work for a county department of health to statistical research on fisheries for the Alaska State Department of Fish and Game.

Most recently, Joyce has worked as a copywriter and public relations specialist for an Indianapolis advertising agency. She also has been a free-lance writer (and still is) of advertising, magazine articles and this spring had her first book, a non-fiction book for children, published by Simon and Shuster.

At ISMA she's been able to use both her biology and writing backgrounds in researching and writing the monthly series for print media, "Your Hoosier Doctor Says . . ." and in serving as assistant editor of *ISMA Reports*. Writing news releases and a forthcoming brochure on smoke inhalation, helping to coordinate the Journalism and Physician Community Service Awards, the Speakers Bureau, and other PR projects keeps Joyce quite busy—particularly since her position, though professional, is part-time. The rest of her time she devotes to free-lance work and to trying to get a suntan between the frequent gray Indianapolis days.

A photography buff, Joyce will be making much use of ISMA's camera equipment during the annual convention and at other events.

Originally from Chicago, Joyce spent several years in Iowa City, Iowa, where she attended the University of Iowa. After living in Juneau, Alaska, Washington state, and Washington D.C., she seems to have settled down in Indianapolis. Single and 31, Joyce has lately become a Jazzercise enthusiast, though she's so far refused to demonstrate her routines in the office. She enjoys bicycling and beachcombing (when she can get to a beach) as well as other mild efforts toward physical activity. For sedentary relaxation, she plays backgammon and is an avid reader and moviegoer.

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The Values of Modern Medicine

**An Address by Dr. Lowell H. Steen,
Chairman of the AMA Board of Trustees,
Presented at the Dedication May 31, 1981,
of the James A. Harshman Wing of
St. Joseph Memorial Hospital, Kokomo, Indiana.**

Sister Martin—Eva, Beth, Mike, Sue, Janet, Paul—friends and colleagues . . .

I am honored to have been invited to address this group, here to dedicate the James A. Harshman Wing of St. Joseph's Hospital. I am honored because Jim is my friend—he is our friend.

Naming this wing the James A. Harshman Wing honors our friend and colleague—honors him in a way that would have made him chuckle with pride, yet humbly pass the honor off as if it were an every day event.

Jim was loved by us all. He contributed much to this hospital, this community, this state, the AMA, and the national pathology societies in which he actively served in many capacities.

He was an activist—he was involved—he made things happen.

I could spend the afternoon recounting memorable experiences we have all shared—both serious and jocular—but we are here to honor him—honor him as a person

who left this world a better place because he did “his thing”—because he was involved in every facet of our profession and of this community.

How better can we remember him than to emblazon his name on this part of the hospital of which he was an integral part—this section of the hospital that serves people, something that was always uppermost in his mind.

My colleagues from the American Medical Association and the Indiana State Medical Association join me in extending our thanks to Sister Martin and to her board of directors for the great honor they have bestowed upon our friend Jim by naming this section of St. Joseph's Hospital the James A. Harshman Wing.

This new hospital wing also exemplifies what I like to think of as the values of modern medicine.

With all of the current emphasis on enhancing the cost-effectiveness of care, there is a tendency to forget the values of that care in terms of

its quality, and what that quality means to the patient, especially the hospitalized patient.

Specific medical advances achieved just since the late 1940s conclusively demonstrate that medical values received have increased tremendously. Advances made during the late 1940s and 1950s included:

- Continued development of new drugs, including new antibiotics, the polio vaccines, hormonal drugs such as cortisone and ACTH, and steroid drugs;

- Improved techniques for the diagnosis and treatment of cancer such as the Pap smear, mammography and thermography, and nuclear-powered betatrons;

- The artificial kidney machine and the kidney transplant;

- Discovery of the molecular structure of DNA, enabling scientists to begin unraveling the genetic secrets of life itself.

Among the many medical advances in the 1960s and 1970s were:

JAMES A. HARSHMAN, MD MEMORIAL WING

- New methods of artificial respiration and heart massage, and development of the heart-lung machine;

- Emergence of the U.S. as a center for open-heart surgery;

- Development of compact kidney dialysis machines for home use;

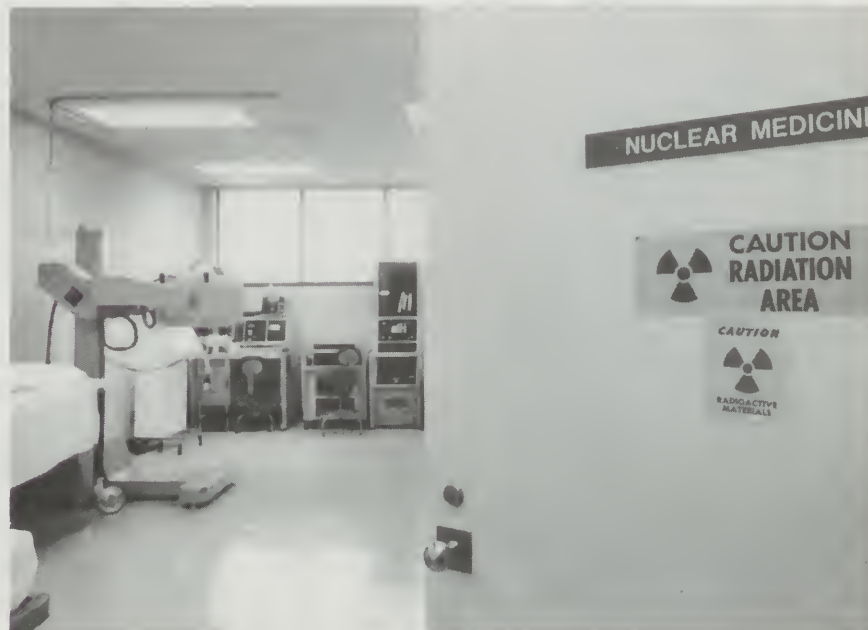
- Use of computers in diagnostic, prognostic and therapeutic feedback systems, as well as in hospital accounting and supply systems.

Among medical advances already recorded in the 1980s are two extremely important spinoffs of genetic engineering and research into recombinant DNA. These two important developments are the genetically engineered production of biological carbon copies of somatotropin, the human growth hormone, and of human insulin.

I could go on and on with this litany of medical advances, most of them pioneered by American scientists and medical researchers.

And it's true that such scientific and technological resources, as well as the additional personnel required for their medical application, have greatly added to the costs of care. But such medical tools also are invaluable to patients in terms of added health and life, especially hospitalized patients with acute problems.

Moreover, great progress has



been made in the organization, or system, of health care delivery. The community hospital, for example, has become the primary locus for the delivery of acute care, and for good if often forgotten reasons. Only in the hospital can the full panoply of technological and human resources be brought to bear on behalf of acutely ill patients. And at a price that's within reason.

Yes, everyone's aware of the high cost of hospitalization. And yes, any number of legislators, health planners, insurance experts and economists are castigating the hospital—and its staff physicians—as the prime villains in the health care cost picture.

Yet it is the hospital that makes it financially feasible to efficiently organize and effectively deliver space-age clinical care to acutely ill patients. And since we who work in the hospital customarily utilize these resources on the patient's behalf, we are more aware than most of their variety and their life-giving values.

The list includes intensive care units for cardiovascular patients, medical-surgical patients, kidney patients, pediatric patients, newly born patients, and burn patients. The list includes a multitude of devices such as respirators and resuscitators, betatrons and CAT scanners, electrocardiographs and automated lab equipment.

The list includes three shifts of nurses every day, seven days a week, and 12 or more additional kinds of allied health personnel. It includes people filling numerous other job descriptions, including administrators, comptrollers, computer experts, plant engineers, plumbers, electricians, carpenters, chefs, and housekeeping personnel. It includes up to 100 different diets a day, drugs, vitamins, chemicals, IVs, bedpans, whirlpool baths and wheelchairs.

And the list includes staff physicians, both generalized and specialized, and very often resident physicians in training.

Expensive? Of course it is—billions of dollars worth of expense annually.

Value received? Assuming we can place a value on intangibles such as added health and life, let's begin with a study undertaken a few years ago at Massachusetts General Hospital.

The study estimated that a person suffering a serious heart attack in 1920 would have spent eight weeks in Massachusetts General for a total charge of only \$180. In 1930 the patient would have stayed six weeks for about \$210. In 1970, the patient would have stayed in the hospital four weeks, but at a cost of more than \$3,500.

But while the patient's chances for survival were less than two to one in 1920, by 1930 the odds had improved to more than three to one, and by 1970 to more than five to one.

Of course, hospital costs have increased a great deal even since 1970. But so have the odds for added health and life for that mythical heart patient.

According to statistics published in *American Medical News* last December, death rates due to heart disease declined an estimated 20% during the eight-year period between 1970 and 1979.

Meanwhile, in a news release in April, the AMA pointed out that since 1935, when Social Security was enacted, overall average life expectancy in this country has increased by 13 years, from 61 to 74 years. The release also cited statistics indicating that the over-65 population in this country will double by the year 2035, and increase in relative size to account for about 20% of the total population.

And this is without taking into

account any additional medical breakthroughs which may occur between now and then. Parenthetically, and aside from such breakthroughs, the application of existing knowledge may very well result in an average life span of from 90 to 100 years by 2035.

This should explain why more and more educators are becoming convinced that today's children should be adequately prepared for tomorrow's new era of aging and why we published a new AMA pamphlet, "Educating Children for the New Era of Aging."

The point to all this is that our hospital family can take real and justifiable pride in the quality of care that we provide to our patients.

Of course, we should be—and we are—concerned about the costs of that care. Just as we are taking various steps to make health care in general, and hospital care in particular, more cost-effective. But we need not be continually on the defensive about those costs.

The English writer, Oscar Wilde, once defined a cynic as someone "who knows the price of everything and the value of nothing."

It seems to me there are altogether too many health care cynics in this country today. And we would do well to occasionally remind them that while modern clinical care does have a high price, especially in the hospital, nowhere is it more valuable, in terms of quality, than in the hospital.

And that value should be counted in terms of added health and life for patients—and not just in terms of added costs to society.

Certainly in the years ahead this new hospital wing, and the health professionals within it, will add immeasurably to the health and the lives of patients from this area—and that is the way Jim would have it.


I think you'll agree that's what this ceremony is all about.

DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahoglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Harassment of the 'Working Girl'

Commentary

THERE IS SO MUCH hue and cry now concerning what might be termed pressure in sexual directions used by male employers or male fellow-employees "against" female employees, that it is about time someone in the audience rises up to speak about the other side of the "problem." The quotes indicate that I doubt it is a true problem, because at bottom it is really a phenomenon—a natural phenomenon—enhanced (both consciously and unconsciously) by the women themselves.

Sex is a basic factor of mammalian life, and without it the human race would cease to exist. Even if cloning were possible, humanity would become stereotyped and thus less and less interesting—or more and more boring, as you please. Sexual reproduction is the only known form of reproduction (without mutations) that allows for new combinations of genes and consequently for *change*. Change permits both progress and recession, but the improvements are apt to win out over the mistakes. As far as Mother Nature is concerned, sex is not sinful or nasty but Her chief instrument for *change*, and therefore for improvement.

It so happens that males are different from females not only physically but also emotionally. Assuming equality of intelligence, this emotional difference causes a different approach to solving problems of everyday life from that used by the opposite sex, and this difference is generally perceived more clearly in any given instance by persons of the *other sex*. This is part of the basis of the female complaint of sexual harassment at work. The males understand the reason better than do the females. It is based on a

A. W. CAVINS, M.D.

Terre Haute

fundamental, at least in part inherited, species-specific body language that can be used either knowingly or unknowingly—i.e., instinctively.

Body language is, in any given culture, perhaps the really fundamental form of communication, taking precedence over speech. Everyone knows that when a person says one thing but means another there are telltale body signals that belie his statements. This is emphasized by folk-lore wisdom, such as the comment that "So-and-So has a pokerface."

Whatever the reason, *really free* speech regarding sex has, in varying degree, been taboo in our culture; consequently, an extensive, intricate, often subtle body language regarding sex has developed and has been with us for centuries—some of it for millennia. This includes the senses—especially sight, touch, smell and hearing—and also includes the style of and flair for clothing, body postures and movements, special care of skin and hair, use of perfume, etc. Even little girls become adept at imitating Mother and thus their femininity becomes culturally accentuated. Its purpose? To attract males. Please to remember, this was Mother Nature's idea—not mine.

The tendency, therefore, is for the working woman to retain her instincts (both genetic and cultural) when she goes to the office, the factory, or the mine. No matter how severely she may plan her costume, she remains a woman inside of it and still "speaks" the same old

body language—the same old language designed through the ages to attract males, automatically.

Of course, this point is obvious in the case of the "working girl" who goes to work attired in the most attractive and alluring costume she can find or devise. Here, we have not just automatic instinctive traits but a planned campaign, with results the girl could scarcely complain of.

It seems to me that harassment of the working woman by men is something the said woman will have to defend against herself, difficult though it may be for her to make herself less feminine, or even neuter. One solution would be to have certain offices and factories "manned" entirely by women, but the U.S. Government has laws that prevent this, at least at present. Besides, the feminist activists would object strenuously because this would nullify their thesis that women are the exact equals of men (or vice versa) and it would deprive them of insisting that our troubles are all men's fault anyway.

Why not just admit what the situation really is and make the necessary adjustment? When a woman is "harassed," let her teach herself how to be as neutral as possible—neither feminine nor masculine. If she tries to be masculine she will only make herself ridiculous and thus lose, precipitously, the dignity she is trying to preserve.

Neither should we forget the other side of the coin—the male side. It is just as difficult for a man to smother his masculinity as it is for a woman to smother her femininity. If both sides could accomplish this smothering, the "coin" would vanish—and what kind of a world would we have?

for Knotts in the night

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(quinine sulfate tablets)

CAUTION Federal law prohibits dispensing without prescription

BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy.

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdose of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision; however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin.

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears.

If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdose, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity. See CONTRAINDICATIONS.) Cutaneous flushing, pruritus, skin rashes, fever, asthmatic distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine

have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties.

Urinary alkalinizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes. Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM/kg) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative, when mammalian liver homogenate was added, positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage. (Individual or multiple symptoms may represent cinchonism or hypersensitivity.)

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoproliferative anemia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia, diminished visual fields, and disturbed color vision; tinnitus, deafness, and vertigo; headache, nausea, vomiting, fever, apprehension, restlessness, confusion, and syncope.

Dermatologic/allergic: cutaneous rashes (urticarial, the most frequent type of allergic reaction, papular, or scarlatin), pruritus, flushing of the skin, sweating, occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related), epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring.

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October, 1980

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prescribe

Tenuate^{*} Dospan^{*} (diethylpropion hydrochloride USP)

75 mg controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Precautions and Adverse Reactions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.


Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

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(diethylpropion hydrochloride USP)

Tenuate Dospan[®] 
(diethylpropion hydrochloride USP)
controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecostoma, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine[®]) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

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Contemporary Indications for the Use of Hyperbaric Oxygen

KARL L. MANDERS, M.D.
Indianapolis

SINCE THE ESTABLISHMENT of the Baromedical Unit at Community Hospital early in 1980, it has been increasingly apparent that this modality is of immense value in treating a variety of medical and surgical problems. Hyperbaric oxygen has been utilized both for emergency and chronic medical conditions primarily as an adjunctive type of modality.

Recent engineering developments have allowed hyperbaric chambers to be built that, for the first time, are medically cost effective. The new chambers are now monoplace, that is, accept only one patient at a time. The patient's entire body is subjected to a 100% oxygen atmosphere, in contrast to a large multiplace chamber in which oxygen is delivered by mask. Thus, the delivery of oxygen is much more efficient and the cost is a fraction as compared to the large walk-in multiplace facilities of the past.

With multiplace chambers, a so-called "tender" accompanied the patient into the chamber, and the number of personnel necessary to run the more complex device was three to four times that necessary for a monoplace facility for which

only one individual is necessary. Some units will utilize a registered nurse, especially trained in hyperbaric oxygen technique, while others will use respiratory therapists.

It is obvious from a cost effectiveness standpoint that the monoplace chamber has made this type of treatment much more accessible to the general medical population.

Hyperbaric oxygen therapy is a treatment in which the individual is exposed to 100% oxygen under increased atmospheric pressure. It has only been in the past decade that the underlying mechanisms of actions of this type of treatment have been physiologically confirmed so as to account for its clinical action.

The history of hyperbaric medicine has been colorful, revealing periods of heightened enthusiasm interspersed with periods of censure and scorn. It has now progressed to a recognized medical treatment.

In the mid-1800s numerous pneumatic chambers were established around the world for the treatment of a variety of respiratory illnesses, including disorders for which the modality was of little value. Since the 1950s, however, hyperbaric oxygen therapy has undergone a renaissance, especially since the work of Boerma of Holland who demonstrated that this

type of treatment could support life in the absence of red blood cells. Shortly after, his colleagues reported successful treatment using hyperbaric oxygen in cases of gas gangrene. The development of the relatively inexpensive monoplace chamber added a new dimension to the field of baromedicine. Finally, the Undersea Medical Society established specific criteria for the clinical use of HBO. These criteria have been accepted by third-party insurance carriers.

In understanding the therapeutic application of this treatment modality, we must elaborate the mechanisms of action.

Hyperoxygenation, of primary importance in many disorders, involves the degree into which oxygen enters the physical solution of body and tissue fluids; it is directly proportional to the partial pressure of the gas to which the fluid is exposed. Oxygen requirements of the body can be satisfied entirely by physically dissolved oxygen when the arterial oxygen pressure is elevated sufficiently. At three absolute atmospheres oxygen saturation is increased 15 times over that delivered by mask alone at surface pressure. It is this physically dissolved oxygen rather than the hemoglobin-born gas that is of primary importance in the treatment of carbon monoxide and cyanide intox-

The author is chairman of the Baromedical Committee, Community Hospital, Indianapolis.



Hyperbaric Oxygen (HBO) is a medical treatment in which the body is exposed to 100% oxygen under increased atmospheric pressure.

Indiana's only Monoplace Hyperbaric Oxygen Chamber, located at Community Hospital, Indianapolis, provides up to 15 times the amount of oxygen available in any other way, according to Barbara Manley, R.N., baromedical clinician, above.

Hyperbaric (physically dissolved) oxygen can be used therapeutically as an adjunctive treatment for both emergency and chronic medical conditions. It is the primary adjunctive treatment for several medical problems, including air embolism and carbon monoxide poisoning.

Patients with acute conditions normally are treated in the chamber twice a day in 90-minute sessions (including 10 minutes for compression and 10 minutes for decompression). Patients with chronic conditions normally are treated once a day for two hours.

This particular unit, manufactured by Sechrist of Anaheim, Calif., sells for approximately \$52,000. It has an internal length of 86 inches and an internal diameter of 25.5 inches. PHOTO BY TOM WAGER

ication, surgical reimplantation of limbs, and the treatment of exceptional blood loss anemia.

A second mechanism is the stimulation of neovascularization. This is of particular interest in wound healing since many areas, especially in chronic wounds and ulcers, have a very low oxygen tension. Elevation of oxygen tension stimulates neovascularization and subsequent wound healing.

Vasoconstriction due to hyperbaric oxygen is a third mechanism felt to be of paramount importance in the treatment of cerebral and spinal cord edema, especially where there may be loss of vasomotor autoregulation, and in the case of

burns where a great deal of edema is seen within the first 24 hours following the injury. Primarily, vasoconstriction decreases the edema in both of these conditions.

Considerable evidence indicates that hyperbaric oxygen aids osteogenesis and increases bone healing when combined with surgery and appropriate antibiotics. The use of hyperbaric oxygen as an adjunctive modality seems to be of great value with the treatment of chronic osteomyelitis.

Bacteriostasis has been well documented, mostly by Dr. Shelly Gottlieb, formerly from Indiana University. He has done some of the primary investigative work on

the effect of hyperbaric oxygen on microorganisms. Toxin inhibition, especially with the clostridia organism, is primarily utilized in the treatment of gas gangrene.

Bubble reduction, used in the treatment of air embolism or decompression illness seen in divers, is a mechanism related not to the oxygen but rather to the effect of the increased pressure upon the gas itself. In Indiana, this indication, of course, is rarely found.

The Undersea Medical Society has defined treatment schedules as based on essentially four categories. The first is that in which hyperbaric oxygen is the primary treatment or adjunctive treatment to other therapy. Investigational experience in these maladies has been extensive. Third-party insurance carriers will reimburse payment for the following disorders: treatment of exceptional blood loss anemia, carbon monoxide intoxication, acute cyanide intoxication, decompression illness, gas embolism, gas gangrene, maintenance of compromised skin grafts, smoke inhalation and Meleney ulcers.

Category two disorders are those in which investigations and experience are less than category one but substantial enough to warrant use within certain constraints. These include arterial insufficiencies, especially of the acute peripheral type, bacteroides infection, crush injuries, acute cerebral and spinal cord edema, refractory osteomyelitis and osteoradionecrosis. Reimplantation of severed limbs, thermal burns of an acute nature, ischemic skin ulcers and stasis ulcers also fall into this category. Acute retinal artery insufficiency as well as acute hearing loss also have been treated successfully.

There are a wide variety of other disorders in which investigation or preliminary clinical trials have shown promise but do not yet demonstrate definitive evidence that

this treatment is as effective or superior to present forms of therapy. This might include the use in frostbite, aerobic infections, multiple sclerosis, hypoxic encephalopathy, chronic cerebral vascular disease, senility and chronic vertigo.

Complications with the use of hyperbaric oxygen are relatively few and easily avoided with some understanding of their mechanism. The most common complication is that of baro trauma, seen in the ear and sinus and prevented by training patients in middle ear pressure equalization. The claustrophobic reactions are very frequent and prevented with pre-exposure orientation, education, relaxation training and minor tranquilizers. The least common complication is that related to biochemical factors occurring perhaps once in every 2,000 treat-

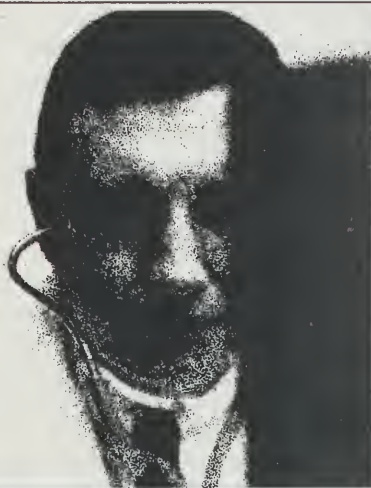
ments. This is seen in the occasional seizure, constriction of visual fields, and mild bone marrow suppression. Prevention of these problems usually is easily accomplished by using Vitamin E, an antioxidant, and by avoiding those agents that might precipitate oxygen toxicity.

From a cost effective standpoint, it is found that hyperbaric oxygen diminishes hospitalization. It results in more prompt healing of grafts and, in many burn centers, it has been found to decrease hospitalization up to 50%. It becomes obvious, therefore, that the cost effectiveness of hyperbaric therapy is an important aspect of its utilization. By reducing the hospital stay, a hyperbaric facility more than pays for the original investment.

Our experience at Community Hospital has demonstrated that, in

spite of the relative inaccessibility of the patient in a monoplace chamber, even critically ill individuals can be treated quite safely in this environment. This has been proved by extensive clinical use at Long Beach Memorial Center where they have performed more than 10,000 treatments a year without any related mortality to the treatment itself. We feel that, with increased knowledge of the mechanisms of action and the high safety record of this therapy, increased utilization will occur.

In summary, hyperbaric oxygen therapy utilizing the monoplace chamber has been found to be a highly effective adjunctive type of treatment that is quite feasible to utilize and prompt in its response. It is extremely safe and predictable as a therapeutic agent.



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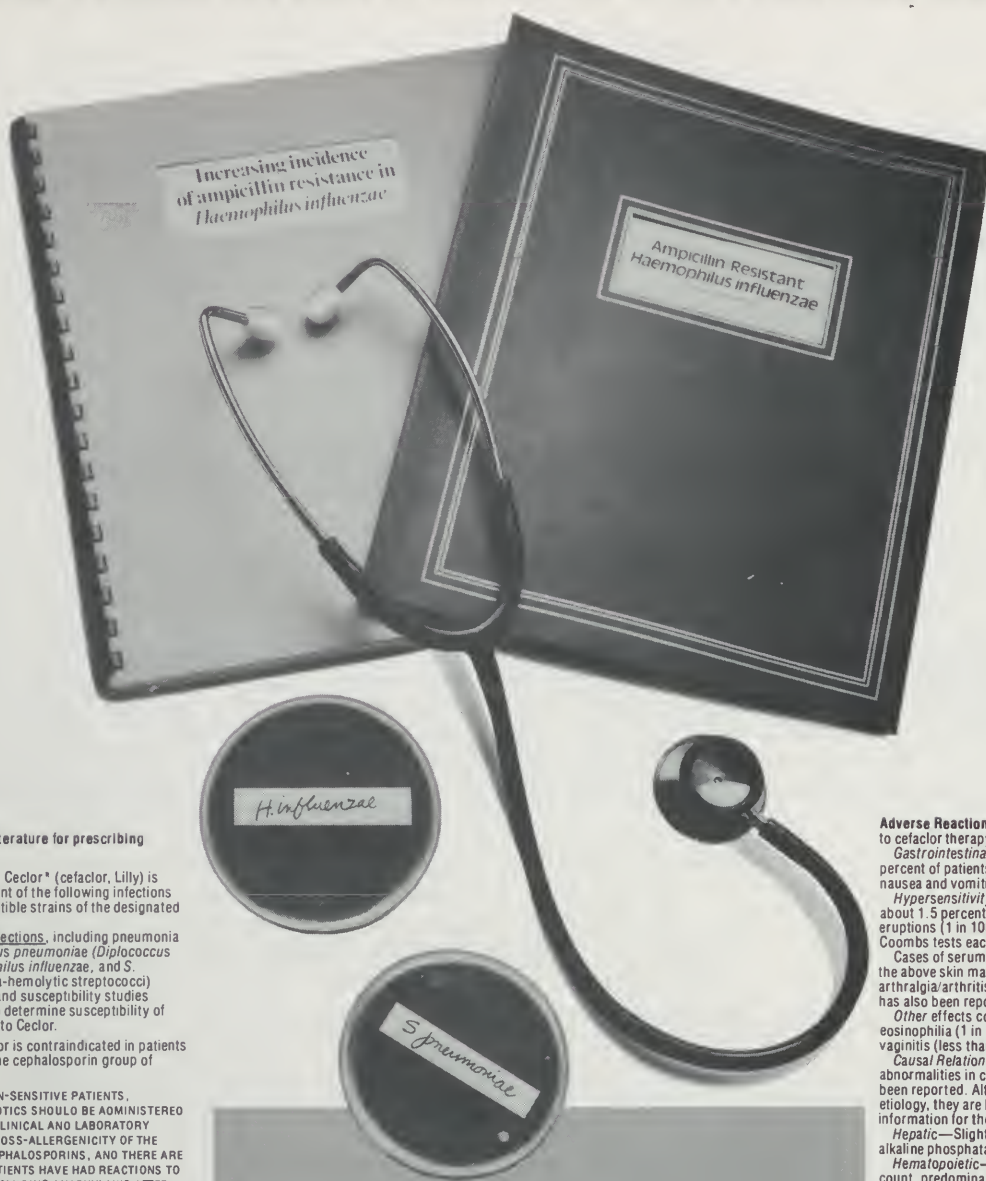
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An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cefclor* (cefclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (Diplococcus pneumoniae), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS. CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.^{1,6}

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefclor therapy are uncommon and are listed below: **Gastrointestinal** symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.

Note: Cefclor* (cefclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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Physician at the Scene (An Intervener)

Emergency Medicine

JOHN C. JOHNSON, M.D.
Evansville

AFTER 15 YEARS of practice, I finally got up enough guts to stop at the scene of an automobile accident the other day and some little jerk, couldn't have been over 20 years old, wearing 14 patches on his jacket, told me to get out of the way and wouldn't let me provide medical care to the victim trapped in the car. Oh, the little jerk said thank you for stopping, but he said no thanks, too.

The world of pre-hospital emergency care is entirely different from that practiced in a hospital and even a hospital's emergency department. The weather, the accident scene, the threat of a car fire, the chance of being shot by an unruly crowd, the necessity to remove the accident scene from about the patient rather than removing the patient from the scene to minimize further injury to the patient, the threat of an additional vehicular accident enroute to the hospital, and even a difference in equipment make pre-hospital emergency care far different from that known by most physicians. Even emergency physicians who practice daily in nice, clean, well equipped emergency departments, but who have never ridden in an ambulance, do not understand the world of pre-hospital care.

Now imagine yourself a 20-year-old emergency medical technician with a patient trapped in a car, a

patient who is dying, and you are working as hard and as fast as you safely can to free this patient and save a life. Now imagine yourself being this person, having had 80 hours of specific emergency training as an emergency medical technician (paramedics have an additional 1000+ hours), and imagine now being confronted in addition to the above with an individual you have never seen before who claims to be a physician and wants to help or even demands to help or take charge. Knowing that some people drive around claiming to be doctors just to see the victims and to relieve their Walter Mitty-like desires for grandeur, and knowing that you have been trained and have functioned in similar circumstances to properly care for this patient, just how cordial and inviting would you be in a similar circumstance?

In most such incidents, the ambulance service involved is not capable of carrying intravenous supplies or medications. No more than basic splinting and bandaging along with proper extrication can be accomplished even with the best of medical expertise at the scene.

In those instances where Advanced Life Support ambulance service is at the scene of the accident or injured patient, however, and intravenous supplies and drugs are available, an emergency physi-

The author is chairman of the Emergency Medical Services Commission, State of Indiana.

cian familiar both with the personnel plying their trade and with emergency pre-hospital care is available on the other end of a radio. He also has the benefit of telemetry (ECG transmission via radio) to aid in his handling of the particular case.

Should you stop at an accident scene? That is a question only you can answer. The ramifications, psychological and financial, can be devastating to certain individuals. But once you have made the decision to stop, please realize that you have entered a stressful situation, as a stranger most likely, and you may not be heralded with open arms.

If you are known to the pre-hospital personnel who are managing the accident scene and the patient, they may invite your participation.

If there are advanced life support personnel at the scene, they may ask that you receive clearance from their base station (hospital) physician before they will listen to any of your treatment "orders." These orders will most likely be transmitted via radio to the base hospital (usually the hospital receiving the patient) for documentation and concurrence, so do not be upset because this is standard procedure for most services confronted with a physician intervener such as yourself.

And finally, you may be asked to ride with the patient to the hospital once you have initiated care of the patient. Except in unusual circumstances, you are best advised to ride along. Suits have been brought against Good Samaritan physician interveners for abandonment when

they failed to accompany the patient to the hospital, and the patient's condition worsened or they died enroute.

The emergency literature is replete with articles on the issue of the physician intervener and, frankly, it is a problem both locally and nationally. The Indiana Emergency Medical Services Commission has established "guidelines" for medical control at the scene, but is not mandating their usage. Each ambulance service throughout the state will need to deal with this problem individually. If you have problems with the issue of the physician intervener, contact your local emergency medical services (EMS) agency or contact the Indiana Emergency Medical Services Commission, 315 State Office Building, Indianapolis 46204.

Emergency Access to Care

The following is the official position taken by the Indiana Emergency Medical Services Commission concerning Emergency Access to Care. The "position paper" was adopted March 13, 1981, according to Dr. John C. Johnson, chairman of the Commission.

The Emergency Medical Services Commission is charged by its enabling legislation (IC 16-1-39) with the promotion and development of an emergency medical services system which will insure that *all* emergency patients receive prompt and adequate medical care throughout the range of emergency conditions encountered.

Acute illness and injury (either physiological or psychological), or the perception of same by the patient or by close associates, often, by their very nature, strike without warning. Similarly, they occur indiscriminately and without regard for the patient's race, sex, religion, national origin, pre-existing handicap, geographical or architectural location, or financial ability to pay for the services involved in the provision of emergency medical services.

The Emergency Medical Services Commission therefore takes the position that all individuals who perceive themselves or are perceived to require emergency medical care should be able to gain access to and receive the service of the system without prior inquiry as to their financial ability to pay for such services.

While the Commission does not have a rule or regulation which specifically and exclusively addresses the issue of access to care, rule 836 IAC 1-2-3 (A) (1) (j) states that an "ambulance service provider shall not act in a reckless or negligent manner so as to endanger the health or safety of emergency patients or members of the general public while in the course of business as an ambulance service provider."

Therefore, for the benefit and protection of providers and patients alike, the Commission urges all providers of emergency medical services to adopt formal policies pertaining to non-discriminatory access to care.

Stroke as a Complication of Migraine Disease

LOUIS F. ROMAIN, M.D.
Fort Wayne

THIS ILLNESS is ancient and was known to the Egyptians as early as 12 B.C. It was first described by the Greeks but not by Aristotle as he felt the brain cooled the blood thus "keeping the heart cool enough for optimal mental activity." Arateaus of Cappadocia in the first century described a unilateral and paroxysmal headache associated with nausea which occurred at regular intervals. He coined the term "heterocrania." Galen accepted this headache as a clinical entity and termed it "hemicrania." The Romans translated the term as "hemicranium." This was corrupted into low Latin as "hemigranea." This found itself into French as "migraine" which gained strong acceptance in the eighteenth century and from then on.

Despite the years in which man has had to observe and study migraine disease, much is still to be learned about it. This communication will deal with an unusual complication of migraine, its early diagnosis and important factors in treatment.

Case Report

A 28-year-old woman had a two-year history of migrainous cephalalgia, having been diagnosed near the time of their onset by one of the city's neurologists. No formal work-up was done and over this period the patient's headache disorder had been gradually worsening. A severe headache began four



FIGURE 1

days prior to referral while the patient's family was finishing a Florida vacation. She described the headache as the "worst ever." There had been a visual aura, then cephalalgia, nausea, vomiting, anorexia and slurred speech. There was extreme weakness and later numbness of the left upper extremity, left face and left leg. The left side was weak as well. The vision was tunneled.

Upon her return to the city, she was seen at one of the emergency rooms where an injection of narcotic, antiemetic and ergotamine tartrate was administered.

She felt her signs and symptoms had worsened by the following morning and she was then referred for neurological consultation. On examination, she had a marked left

hemiparesis with an associated left-sided hyperreflexia. Abdominals were absent. A left central facial paresis was documented. Primary and secondary sensation was impaired on the entire left side, especially the arm and face. She was pale and appeared ill. She vomited before and after examination. She was admitted to a hospital immediately.

In the hospital, her collagen studies and sedimentation rate were normal. A technetium brain scan showed a marked asymmetry of flow and a CT scan showed decreased attenuation of the right hemisphere. An EEG showed delta, grade II focal, right temporal. An angiogram delayed until the second day post-admission was felt by radiology to show a very severe

From the Neurological Clinic, Inc., 3124 E. State Blvd., Fort Wayne, Ind. 46805.

obliterative endarteritis of the entire right internal carotid artery and less severe but similar changes in the left internal carotid artery. (Fig. 1) The possibility of severe vasospasm seemed less feasible although clinically alluring from the neurological aspect.

The patient made a slow improvement with hydration and later physical therapy. Later, she was treated with propranolol and aspirin. She still had neurological residuals at the time of release but medications were continued along with close clinical follow-up and a regular physical therapy program. Biofeedback also was employed. She refused repeat arteriography as recommended by radiology but did agree to digital subtraction angiography, which was normal six months after the attack. There were no signs of "endarteritis" in the study. (Fig. 2)

Discussion

Fere cited Charcot as stating that the transient neurological disturbances of migraine could become permanent. Fere⁷ suggested that vasospasm could be the cause of vascular occlusion. His French publication was in 1881. The following year Galezowski⁸ described four migraineurs with permanent visual sequelae in a communication in *Lancet*. Hunt¹⁰ added eight more cases in 1915. His cases also showed permanent visual signs and symptoms consisting of homonymous field defects.

Guest and Woolf⁹ described a fatal case of migraine due apparently to small hemorrhages and diffuse ischemia of the cortex and pia mater found at post-mortem. There are a number of intracranial hemorrhages associated with migraine disease. Adie¹ reported a case of subarachnoid hemorrhage secondary to an attack of migraine in *Lancet* in 1930. Boisen² reported seven cases of stroke attributed to migraine in a

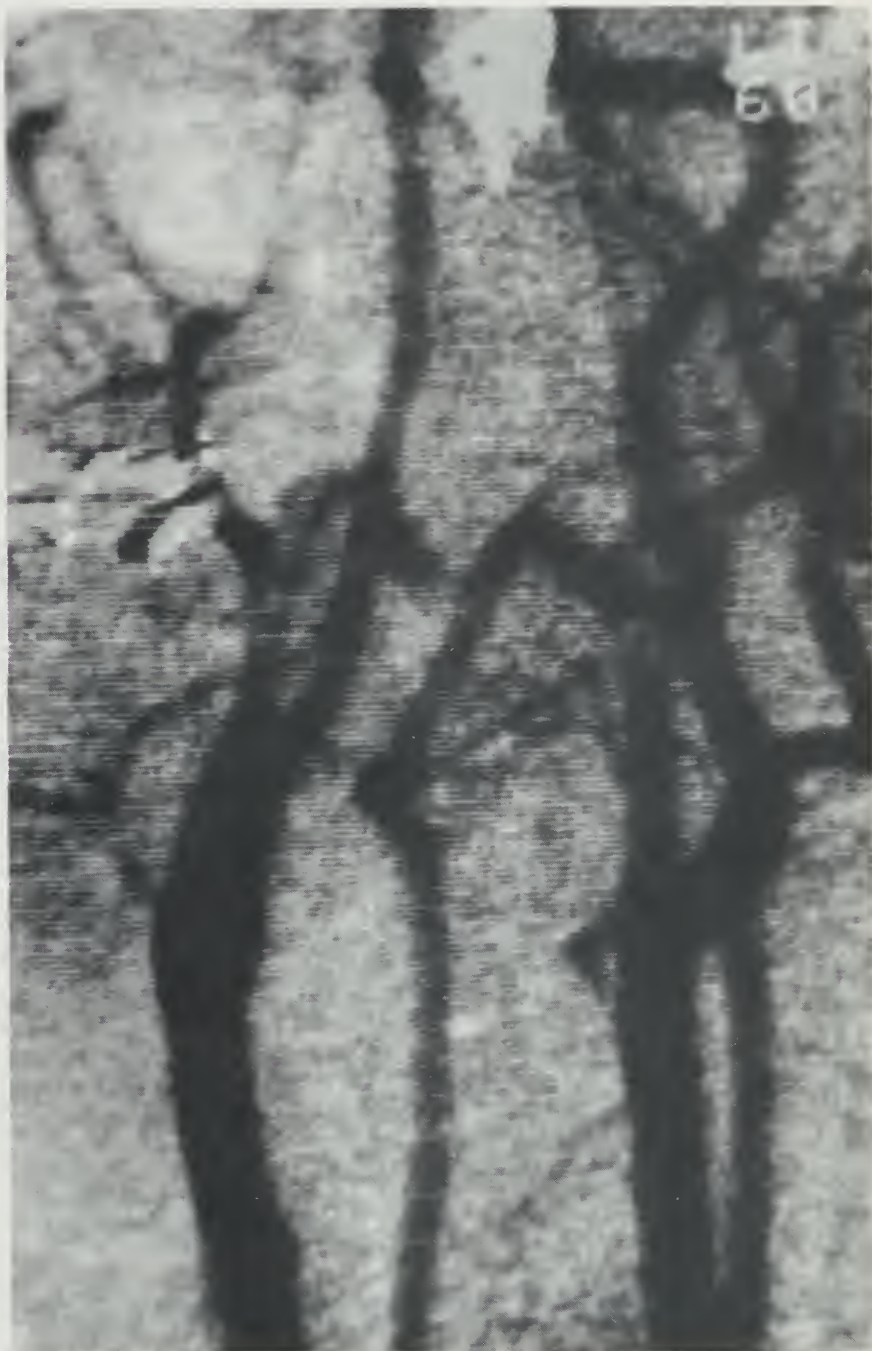


FIGURE 2

Danish publication in 1975. In each of the patients, the ictus occurred during a severe attack. Cohen and Taylor⁵ reported a case of migraine with multiple cerebral infarcts in 1979. The most severe attack followed reduction of the patient's

propranolol dosage to extremely low levels.

Hemiplegia

The migrainous variant known as hemiplegic migraine varies from the classical type in a number of

respects. The aura is a sensory-motor hemiplegia which can be severe in degree. Cephalalgia may occur at the same time or even precede the aura. Aphasia occurs if the hemiplegia is on the right. There is usually some degree of confusional syndrome, drowsiness or even coma. The duration of symptoms in uncomplicated hemiplegic migraine is a few days rather than hours as occurs in classical migraine. A family history is common and helpful in establishing the diagnosis if present. Patients usually have more usual migraine attacks for a period of time before having a hemiplegic attack. There are a number of cases precipitated by arteriography done to exclude other more sinister entities that may produce symptomatic migraine.

Pathophysiology

There is no universal agreement as to the pathophysiology of hemiplegic migraine. Familial factors are no doubt important but their mechanism of action is likewise unclear. Ross¹¹ subscribes to the theory of vasospasm. It may well be that many patients with hemiplegic migraine have a genetic susceptibility to periodic vascular spasm resulting in severe focal cerebral ischemia. Guest and Woolf's case studied at autopsy was 28 years old. He apparently died of cerebral infarction during a severe hemiplegic migraine attack. Pathologic examination revealed signs of ischemia, predominantly in the territory of the left anterior cerebral artery. A case by Bradshaw and Parsons³ reported a patient who took large doses of ergotamine tartrate, which precipitated an attack resulting in residual hemiparesis and impairment of mental faculties. They attributed this to the effects of prolonged vasospasm or thrombosis.

Dukes and Vieth⁶ performed carotid arteriography on a patient suffering from hemiplegic mi-

graine. During the procedure, the patient developed an attack and his arteriogram showed a progressive decrease in vessel caliber and filling in the internal carotid system. When the attack was over, the arteriogram returned to normal.

Differential

Cerebrovascular accidents, tumors, aneurysms, arteriovenous malformations, and epilepsy can be confused with hemiplegic migraine. Conversion hysteria may share some superficial features as well.

Temporal (giant cell) arteritis and polymyalgia rheumatica manifest distinctive laboratory and clinical phenomena, thus distinguishing them from hemiplegic migraine. Melkersson's syndrome, which is accompanied by typical migraine but with transient complete peripheral facial palsy, and lingua plicata and benign organismic cephalalgia, which occurs only with sexual climax, are less common conditions in the differential diagnosis.

Moya moya disease may imitate hemiplegic migraine and occurs in all ages but mostly in children and women. Recurrent headaches of sudden onset associated with facial weakness occur, leaving varying residua. Angiography reveals narrowing of the carotid bifurcation followed later by the development of a net of vessels at the base of the brain, the "rete mirabile," hence, the Japanese name moya moya for "hazy." It was once thought to occur only in Japanese children.

Therapy

The general approach to the drug management of migraine disease is to prevent the secondary vasodilatation, the cause of headache. However, in hemiplegic migraine vasoconstriction appears to be the probable cause of the persistent focal neurological signs. Thus, vasoconstrictors appear unwise on theoretical and clinical grounds. Pro-

pranolol seems a safe agent for the prevention of attacks and there are some early clinical data supporting the use of this drug regimen. It is hoped that in this way the serious sequelae from hemiplegic migraine can be avoided.

Summary

In this communication, a sinister complication of migraine disease is presented. In any migraineur in whom the patient's migraine pattern is modified, especially with the first demonstration of hemiplegia, extreme care in management is indicated. The patient should be carefully examined neurologically. Ergot derivatives should be judiciously employed or avoided in favor of hydration and traditional analgesics. Aspirin to decrease platelet aggregation and propranolol for beta adrenergic blockade appear to be effective avenues of later treatment and prophylaxis.

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THE EARLIEST description of thoracic outlet syndrome was made by Willshire who in 1860 reported a pulsating subclavian artery which crossed over a cervical rib. Further contributions to the understanding of this syndrome were made by Coote (1861), Murphy (1905), Stopford and Teflon (1919), and Adson and Coffey (1927). These authors emphasized the role of cervical ribs and the scalene muscles in this entity.

Historically, this affliction has been known as the cervical rib syndrome, scalenus anticus syndrome, hyperabduction syndrome, costo-clavicular syndrome, and the first thoracic rib syndrome. These disorders, collectively known as the thoracic outlet syndrome, are caused by compression of the brachial plexus, the subclavian (or axillary) artery or vein in the region between the thoracic outlet and the insertion of the pectoralis minor onto the scapular coracoid process. Throughout the years, this disorder has been poorly understood. The vast majority of symptoms are

caused by brachial plexus compression, with vascular involvement comprising 10% of the cases.

An understanding of the anatomy and potential areas of compression is necessary for the proper evaluation and treatment of patients with thoracic outlet syndrome. The anterior scalene muscle separates the outlet into an anterior compartment containing the subclavian vein and a posterior compartment containing the subclavian artery and brachial plexus. The subclavius muscle forms the anterior boundary of the outlet as it crosses over the vein inserting onto the costal cartilage of the first rib. The posterior boundary of the outlet is formed by the scalenus medius muscle as it inserts on the first rib. The posterior scalene muscle, which does not contribute to any neurovascular compression, inserts upon the second rib.

Other factors that may contribute to neurovascular compression in this area include: 1) Fractures of the clavicular and first rib, leading to bony deformity, 2) cervical ribs (which occur in approximately 1% of the population) produce symptoms in 10% of these patients, 3) long transverse process of C₇, which may function as a cervical rib, 4) abnormal thoracic ribs, 5) compression by neoplasms in the

thoracic outlet, 6) occupations that require hyperabduction, 7) postural changes (which occur with aging) that lead to downward displacement of the upper extremity and shoulder girdle, thereby producing symptoms, and 8) congenital fibromuscular bands (Types 1 to 5), which cause compression in various anatomical locations.

As previously stated, the majority of symptoms are neurologic in origin. The symptoms consist of paresthesias, pain and numbness in the fingers and hand. These usually occur in the ulnar distribution but may be found anywhere in the arm or shoulder girdle. Less frequently, neurological symptoms may radiate to the side of the neck, supraclavicular and infraclavicular area, causing headaches.

The symptoms of arterial compression include ischemic pain, paresthesia, coldness and weakness in the fingers and hand. These are sometimes precipitated by cold exposure or exercise. Distal embolization or thrombosis also may occur. Venous symptoms include cyanosis, edema, aching and swelling.

A thorough history and physical examination should lead one to the diagnosis of thoracic outlet syndrome, although the symptoms may be variable in each case.

This report is based on a discussion during the Peripheral Vascular Conference conducted in February 1981 at St. Vincent Hospital, Indianapolis.



Subclavian artery compression upon hyperabduction.

Three maneuvers may be diagnostic of vascular compression:

- Adson's test. While monitoring the radial pulse, the patient extends the neck, takes a deep breath and turns the head to the symptomatic side. Reduction or disappearance of the pulse may constitute a positive test. Many times a bruit may be heard in the supraclavicular fossa.

- Costoclavicular compressive maneuvers. In this maneuver the patient assumes the military position by throwing the shoulder posteriorly and downward. Once again the radial pulse is palpated and any reduction in amplitude constitutes a positive test.

- Hyperabduction test. Passive hyperabduction of the arm while monitoring the radial pulse may indicate arterial compression by the pectoralis minor tendon.

Objective aids to diagnosis include:

- Roentgenograms of the neck and chest, which may show anomalous ribs, prominent transverse processes or abnormalities of the clavicle.

Arteriography or phlebography, which may show vascular compression, especially upon hyperabduction.

- Electromyography and nerve conduction studies, which may reveal altered responses or prolonged conduction times.

For most patients an initial trial of specific exercises that improve posture and strengthen the shoulder girdle is indicated. This may lead to reduction of symptoms in 50-75% of the cases. Patients with significant vascular insufficiency or post-stenotic aneurysm formation require prompt surgical intervention. Patients with significant disability also should be considered for surgical management.

Many operative approaches to relieve these symptoms have been proposed in the past. Some of these include excision of the cervical rib, resection of the anterior scalene

muscle or clavicle, and division of the pectoralis minor tendon. The best results have been obtained by resection of the first rib and sometimes the pectoralis minor tendon or cervical rib. This effectively removes all potential areas of neurovascular compression. The first rib may be resected through an anterior, posterior, or transaxillary approach (popularized by Roos). If thrombosis or aneurysm formation are present, additional vascular procedures are needed. Complications of operative therapy include injury to the brachial plexus, subclavian artery and vein, or pneumothorax. Recurrent symptoms are treated by physiotherapy and require re-operation in only 1% of the cases.

Dr. Williams: The approach to surgical resection of the first rib is an area in which Dr. Gardner and I disagree. I like to utilize the transaxillary approach to first rib resection because I feel the exposure to the outlet is better. This allows better visualization to the posterior aspect of the resection behind the brachial plexus. The postoperative morbidity using this approach is less than other procedures. Dr. Gardner, would you give us your feelings about the approach to first rib resection?

Dr. Austin Gardner: Honest differences of opinion regarding the indications and technique of surgery have been present since time immemorial and that is what makes our work so interesting.

I feel that the subclavicular approach is safe and have noted little morbidity. The patients presented today who were operated in 1974 have had good long-term results. The young man operated several weeks ago went home on the first post-operative day and wishes to return to work. The rib only needs resection in the area of the scalenus anticus insertion.

Cell-Mediated Immune Reactions

Clinical Notes

THERE IS INCREASING evidence that while contact dermatitis and tuberculin-type reactions are both cell-mediated, they are very different. This probably requires some explanation.

Allergic reactions are generally classified into four types as described by Coombs and Gel.¹ Types I, II, and III are antibody-mediated in that circulating immunoglobulins are involved in one way or another. Type IV hypersensitivity is said to be cell-mediated or delayed because it requires leucocytes and it usually does not appear for 24-48 hours, although the time varies. It is not delayed in the sense that it takes longer to induce this sensitivity in a nonallergic subject. For example, contact sensitivity may appear as early as 5-7 days after the initial exposure, while the Arthus phenomenon (Type III) normally requires about 14 days.

In contact dermatitis, potent sensitizers are often substances that are soluble in lipids (enabling them to penetrate cell membranes) and form covalent bonds with proteins. The whole antigen is made up of a hapten (simple chemical) and a "carrier" protein. Reactions are specific for both of these *plus* a surface marker antigen (Ia in the mouse) found on Langerhans' cells and some, but not all, macrophages. The antigenic markers are closely linked to the major histocompatibility complex and are, consequently, inherited. Therefore, close relatives are more likely to have the same marker than non-relatives.

After the antigen has been on the skin a few hours, specific T lymphocytes induce proliferation in the paracortical areas of lymph nodes resulting in memory cells and effector cells. The former provide an accelerated or anamnestic response

on reexposure, while the latter cause an immunologic reaction at the target site but do not further proliferate or differentiate. Immunologic reactions in this system are specific not only for the hapten and carrier protein, but also for the Ia antigen which is genetically determined. The specificity of the Ia antigen makes it difficult, if not impossible, to transfer sensitivity from one strain of animals to another unless those strains share some identity in that region.

Tuberculin sensitivity often is considered to be equivalent to contact dermatitis because both are examples of delayed hypersensitivity. However, a cogent argument can be made for their separation. In guinea pigs, severe leucopenia diminishes tuberculin sensitivity² but not contact allergy.^{3,4} Cyclophosphamide, which prevents the participation of macrophages, decreases the response to intradermal challenge of both the tuberculin reaction and contact dermatitis, but not the reaction to topical application. This is probably due to the presence of Langerhans' cells in the epidermis.⁴ These cells contain Ia antigen, providing the necessary combination of the complete antigen (hapten plus carrier protein) and the specific Ia antigen.

In the tuberculin reaction, treatment with x-ray or cyclophosphamide will depress both the erythema and induration, while in contact dermatitis, the cellular infiltrate is susceptible to cyclophosphamide but the vascular component is not.⁴ Drugs that interfere with the macrophage migration inhibitory fac-

tor (MIF) such as colchicine and vinblastine also diminish the tuberculin reactions but not contact dermatitis.

One also sees a difference histologically in that the infiltrate of contact dermatitis is more likely to contain basophils⁵ and a higher percentage of lymphocytes.⁶

Recently, contact hypersensitivity has been found to have two forms of T suppressor cells rather than one, and this differs from antibody-mediated sensitivity.⁷ Whether this occurs in the tuberculin reaction remains to be seen. However, there is little doubt that differences exist in the basic mechanisms of contact dermatitis and the tuberculin reaction and one cannot assume that qualities determined experimentally for one can automatically be applied to the other.

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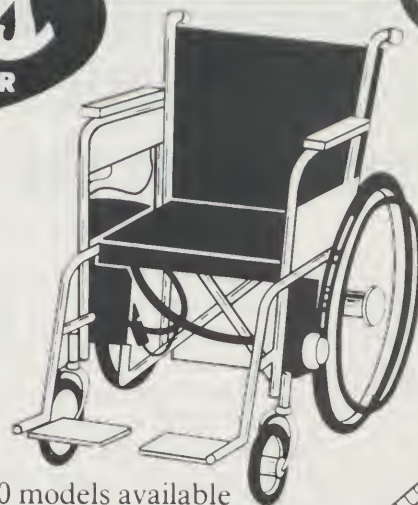
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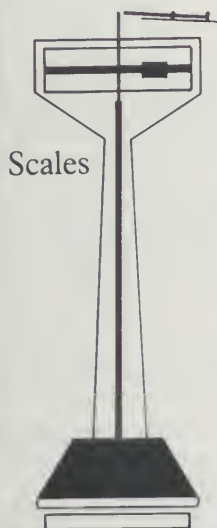


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Syndrome of Inappropriate Secretion of Antidiuretic Hormone (SIADH): Nemesis for the Unwary

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NOT THE LEAST of the vital functions of the neurohypophyseal system are maintenance of plasma osmolality within narrow limits and of body fluid volume. The system operates by releasing or inhibiting secretion of antidiuretic hormone (ADH), more conveniently thought of as "water conserving hormone." ADH is synthesized in the supraoptic nucleus of the hypo-

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thalamus and is then stored in the neurohypophysis (posterior pituitary gland). From this locus, it is released into the circulation on orders from the hypothalamus.

Plasma ADH levels are governed by changes in plasma volume and in osmolality of the extracellular fluid (ECF); these changes are sensed by volume receptors in the left atrium, pressor receptors in the carotid body, and osmoreceptors in the hypothalamus. Appropriate release of ADH is essential for health; but a bewildering variety of factors can stimulate inappropriate release of the hormone or synthesis of an ectopic ADH-like material. Stimulants of ADH release include such divergent factors as pain, stress, trauma, surgical procedures, and a long list of pharmacologic agents. We abbreviate the syndrome of inappropriate release of ADH as SIADH. Its peculiar significance in clinical medicine depends upon three facts:

- 1) It stems from a cluster of seemingly unrelated causes.
- 2) Its onset is signaled by a dramatic drop in the serum sodium rather than by warning symptoms.
- 3) By the time symptoms be-

Table 1: Conditions Favoring or Causing SIADH

Trauma or Therapeutic Procedures
• Head injury, including facial injury
• Prolonged mechanical pulmonary ventilation
• Heart valve operation
• Major surgical operation
Tumors
• Oat cell tumor of lung
• Adenocarcinoma of lung
• Carcinoma of pancreas
• Carcinoma of duodenum
• Thymoma
CNS Disorders
• Tuberculous meningitis
• Aneurysm
• Herpes simplex encephalitis
• Brain abscess
• Cerebral hemorrhage
• Guillain-Barre syndrome
• Limbic stimulation (pain, fear, major trauma)
Pulmonary Disorders
• Tuberculosis
• Pneumonia
• Chronic lung infection
• Status asthmaticus
• Aspergillosis with cavitation
Endocrine Disturbances
• Myxedema
• Adrenal insufficiency
• Hypopituitarism
• Porphyrin
Unexplained SIADH

caused by sodium deficit. With excessive ADH secretion, water is retained, and ECF volume is virtually normal. For this reason, there is no increase in the secretion of aldosterone. If ECF volume is reduced (by drastic reduction in water intake), then aldosterone exerts its usual mission of conserving sodium and restoring the serum sodium to normal.

Thus, SIADH, unimpaired by aldosterone's conservation, produces hyponatremia, ECF volume expansion, and loss of precious sodium. Probably the most frequent terminal event in fatal SIADH is cerebral edema, occurring despite the fact that peripheral edema does not ordinarily appear in the syndrome. The cerebrospinal fluid is—to a degree—isolated from the general ECF. But while it cannot exchange molecules of solids freely with the general ECF, water does pass the barrier readily. Drawn by osmosis into the cerebrospinal fluid, water volume increases, and edema occurs. If 5% dextrose in water is given parenterally, the dextrose is utilized by the brain cells,

leaving water and further promoting edema. In addition, if a head or facial injury has caused the SIADH, this of itself can cause edema. Should the edema of the brain be so massive as to cause herniation of the brain stem through the foramen magnum, death promptly occurs.

Etiology

SIADH is caused by a wide variety of circumstances, the pathogenesis of which is almost invariably obscure. Among the causal agents are trauma, including the trauma of surgical procedures; tumors; CNS disorders; pulmonary diseases; endocrine disturbances; and SIADH from no discernible cause. (See Table 1) Other causes of SIADH include a formidable cluster of pharmacologic agents, such as hypoglycemic agents, antitumor agents, diuretics, analgesics, tranquilizers, and other agents. (See Table 2) The list of possible causative agents is lengthy. Moreover, many of these agents have the potential of causing other body fluid disturbances. It would not, therefore, be at all surprising if the patient with

come manifest, it may be too late to reverse the process.

Pathophysiology

The target organ of ADH is the kidney. The action of ADH on the renal tubules is mediated by cyclic adenomonophosphate (cyclic AMP). Permeability of the collecting tubules to water is increased. In addition, reabsorption of urea in the tubules is enhanced, resulting in increased renal medullary interstitial hypertonicity. These effects provide the basis for the passive reabsorption of water in the collecting tubules.

Of prime import in SIADH is the fact that aldosterone is not operative. In the usual situation, sodium deprivation stimulates secretion of aldosterone. It does so because of the reduction in ECF volume

Table 2: Pharmacologic Agents Causing SIADH

Hypoglycemic Agents
• Chlorpropamide (Diabinese®)
• Tolbutamide (Orinase®)
• Phenformin (DBI®, Meltrol®) (now available only for approved investigational use)
• Metformin (used clinically only outside U.S.A.)
Antitumor Agents
• Vincristine (Oncovin®)
• Cyclophosphamide (Cytoxan®)
Diuretics
• Chlorothiazide (Diuril®, Diupres®)
Analgesics
• Acetaminophen (Tempra®, Tylenol®, Datril®)
• Morphine
• Barbiturate
• Nicotine
Tranquilizers
• Amitriptyline (Elavil®, Amitril®, Endep®, Etrafon Tablets®)
• Thioridazine (Mellaril®)
• Fluphenazine (Prolixin®)
• Thiothixene (Navane®)
• Carbamazepine (Tegretol®)
Other Agents
• Clofibrate (antihypercholesterolemic agent) (Atromid-S®)
• Isoproterenol (bronchodilator) (Isuprel®)

Table 3: Criteria for Recognizing SIADH on the Basis of Lab Findings

- Hyponatremia with low plasma osmolality
- Continued renal excretion of sodium in excess of intake
- Absence of evidence of fluid volume depletion
- Urine osmolality inappropriately high for the plasma osmolality—i.e., less than maximally dilute
- Normal renal function
- Normal adrenal function
- Improvement with fluid restriction

SIADH also suffered from other imbalances.

Symptoms

The first possible clinical clue to the presence of SIADH is depressed serum sodium. Signs and symptoms do not usually appear until the serum sodium is down to the 115 to 120 mEq/L range. By this time, the patient's condition is serious—if, indeed, it has not passed the point of no return. Symptoms usually begin with loss of appetite, nausea, vomiting, headache, abdominal cramps, and personality changes, including withdrawal, confusion, and hostility. Later, the patient may become violent. Then, grand mal convulsions or coma may occur.

If the correct diagnosis is not suspected, neurologic procedures, such as pneumoencephalography and trepanation, may be undertaken. After the serum sodium has dropped below 110 mEq/L, deep tendon reflexes may disappear, and bilateral ankle or patellar clonus, bilateral Babinski signs, bulbar palsy, muscle weakness, and hyperventilation may be observed. Weight gain due to water retention is the usual rule; but if the patient is severely anorexic or is suffering from advanced carcinoma, weight gain may be absent. The rapidity of the onset of symptoms parallels the speed with which hyponatremia develops.

Any combination of the symptoms described occurring in a patient who is a possible candidate for SIADH should prompt the nurse to

suggest (or order) serial serum sodiums, the results of which should be reported *without delay*.

Diagnosis

Diagnosis of SIADH rests on a diagnostic package that includes characteristic etiology (not always obvious), symptoms, physical findings, and laboratory findings. Presence of one of the known causes of SIADH should cause strong suspicion. Typical symptoms and physical findings help clinch the diagnosis; unfortunately, they occur only late in the development of the syndrome, perhaps too late to save the patient.

Laboratory studies are crucial for a firm diagnosis. These include a serum sodium under 125 mEq/L, usually much under. This finding appears long before the significant and ominous symptoms appear. The serum potassium level may be normal; or, it may be low, in association with an elevated serum bicarbonate, if the SIADH has been produced by excessive diuretic therapy. Since sodium ions continue to be excreted in the urine despite the low serum sodium, the sodium excretion will be equal to or greater than the sodium intake. The urine is concentrated, with a specific gravity greater than 1.012 and a sodium above 20 mEq/L; these figures may be lower if the patient is on a sodium-restricted diet.

The urine osmolality is usually higher than the plasma osmolality because the urine contains important amounts of sodium ions, and the plasma is diluted with water.

Hence, the urine osmolality can be expected to be greater than 150 mOsm/Kg water. Radioimmunoassay for ADH in the urine usually reveals increased excretion. Excretion of adrenocortical hormones in the urine is normal. Serum BUN, creatinine, and ADH (determined by bioassay) are normal, as is creatinine clearance. Serum T³ and T⁴ are normal. (See Table 3).

Differential Diagnosis

Other forms of hyponatremia must be ruled out: in *osmotic hyponatremia* (variously referred to as pseudo-, fatuous-, false-, spurious-, factitious-, and artifactual-hyponatremia), the serum sodium appears depressed because accumulation of non-electrolytes such as glucose, lipids, salicylates, or urea has expanded ECF volume. What is really pertinent is not the concentration of sodium in the expanded ECF, but the sodium concentration/L of extracellular water. To determine if the latter is normal, regardless of the measured serum sodium concentration, one must first measure the serum osmolality and then correct it, perhaps by the method of Edelman, as cited by Goldberger:

$$\frac{\text{Measured serum osmolality (mOsm/Kg)} - \frac{\text{glucose (mg/100 ml)}}{18}}{2.8} = \text{corrected serum osmolality}$$

In an emergency, an approximation of the plasma osmolality can be obtained by use of the following formula:

$$\text{Serum osmolality (mOsm/Kg)} = 2(\text{Na} + \text{K}) + \frac{\text{BUN}}{2.8} + \frac{\text{Glucose}}{18}$$

In this formula, sodium and potassium values are in mEq/L serum, and BUN and glucose concentration in mg/100 ml serum.

If the corrected serum osmolality falls within the limits of normal (260-275 mOsm/Kg), then the so-

Table 4: Typical Findings in Various Hyponatremias

	ECF Volume	Edema	Urine Specific Gravity	Urine Osmolality Greater Than Serum Osmolality	Sodium Of Urine
SIADH	Normal or Expanded	Absent*	Above 1.012	Yes	Above 20 mEq/L
Dilutional Hyponatremia	Expanded	Present	Below 1.012	No	Below 20 mEq/L
Sodium-Depletion Hyponatremia	Contracted	Absent	Below 1.012	No	Below 20 mEq/L
Psychogenic Polydipsia	Normal	Absent	1.000-1.004	No	Below 20 mEq/L
Osmotic Hyponatremia	Normal	Absent	Normal	No	Below 20 mEq/L

*Except in Terminal Cerebral Edema

dium concentration/L serum water is normal, regardless of the value for the measured serum sodium concentration. If the corrected serum osmolality is low, then the sodium concentration of the extracellular water is low, and true hyponatremia is present. If the measured serum osmolality is high, the reason for the elevation is usually obvious—diabetes, azotemia, perhaps accumulation of salicylates. Attention should then be focused on one of these conditions rather than on the apparently low serum sodium. Additional help is provided by the fact that in osmotic hyponatremia, the osmolality of the serum is higher than that of the urine.

Dilutional hyponatremia is characterized by an expanded ECF volume and by serum osmolality greater than the urine osmolality. Moreover, the urine is maximally dilute, having a specific gravity well under 1.012. The clinical background usually gives the clue to dilutional hyponatremia. Moreover, edema is present.

Hyponatremia caused by sodium depletion is characterized by a contracted ECF volume and by a urine with an osmolality that is less than that of the serum. The urine specific gravity is well under 1.012. Edema does not occur.

In *psychogenic polydipsia*, one finds an enormous water intake,

psychic disturbances, and a urine with a specific gravity of 1.000 to 1.004.

When cerebral edema develops in advanced SIADH, signs and symptoms resemble those of *disease of the CNS*. The laboratory findings indicative of SIADH should usually enable one to rule out primary CNS disorders. However, patients with CNS disease are sometimes maintained in a bed with the head elevated, which can of itself stimulate inappropriate secretion of ADH by reducing pressure on atrial volume receptors. Lowering the head of the bed removes this stimulus.

Adrenal disease can be ruled out by assessment of adrenal function. Normal renal function excludes the possibility of *renal disease*. A normal T³-T⁴ eliminates *thyroid hypofunction*.

Because of the varied etiology of SIADH, the pathogenesis of which is often obscure, the condition can be combined with other primary disorders, thus complicating the difficulty of precise diagnosis. (See Table 4)

Treatment

The simplest, most logical therapy for SIADH is fluid restriction, with fluid limited to 500 to 700 ml/day. When fluid intake is restricted so that urinary and insensible losses

create a negative water balance, body fluid balance usually returns rapidly to normal. Aldosterone can then exert its role in sodium conservation. Although infusion of hypertonic saline (5%) has been used in patients with severe SIADH who have convulsed or are in coma, most of the administered saline is quickly excreted. Moreover, fluid overload may precipitate congestive heart failure.

Another method of treating SIADH consists of intravenous administration of a potent diuretic, such as furosemide (Lasix®), 1 mg/Kg body weight, with hourly replacement of electrolytes lost in the urine. Its advocates maintain that sodium levels can be normalized in six to eight hours using this method.

When SIADH is brought on by pneumonia, meningitis, endocrine disorders, heart failure, or cirrhosis of the liver, successful therapy of the primary disorder usually causes the SIADH to disappear. Similarly, stopping drugs prone to cause SIADH usually ends the problem.

When SIADH is caused by bronchogenic carcinoma, surgical, radio-, or chemotherapy may—or may not—relieve symptoms.

Some have employed lithium carbonate, 300 mg by mouth every 6 to 7 hours, for as long as a week. This agent probably interferes with

ADH in the renal tubules but may be toxic to patients with heart or liver disease. Many precautions should be observed when lithium is used. For example, particular hazards attach to its use with diuretics and in the elderly.

Demeclocycline (Declomycin®) is another agent that has been used in treatment. One patient with a basal skull fracture was successfully treated with phenytoin (Dilantin®) for a long period.

Nursing measures play an essential role in management. Thus, when cerebral edema impairs consciousness, nursing measures can prevent the hazards of immobility. Frequent turning and suctioning may prevent hypostatic pneumonia and atelectasis; proper turning and positioning help forestall decubiti and foot drop; range of motion exercises help prevent muscle atrophy.

Among the hazards of immobility is constipation, with fecal impaction. The necessarily strict fluid restriction in SIADH increases its likelihood; the gastrointestinal hypomotility that accompanies hyponatremia further contributes. Suppositories and oil retention enemas may be required; tap water enemas should be avoided since the water can be absorbed by the intestine, thus contributing to the excessive water load already present. Expelling the enema further depletes the body of sodium. Clinical signs of increased serum osmolality include return of normal bowel sounds and improved appetite.

Auger and his associates have indicated that when the head of the bed is tilted downward 5 to 10°, the blood level of ADH decreases; the mechanism is thought to be increased left atrial filling, which reflexly decreases ADH release signaled by volume receptors in the left atrium. The head down position is contraindicated, of course, when it might deleteriously increase

intracranial pressure.

The nurse should frequently assess the neuromuscular status of the patient to detect subtle changes: an increase in the deep tendon reflexes and in muscle strength indicate improvement, as does a higher level of consciousness. The unconscious, disoriented, and convulsing patient must be protected by safety measures. And as the state of consciousness improves, the nurse should frequently re-orient the patient since memory loss often occurs.

If possible, the patient's cooperation should be gained to facilitate fluid restriction. The need for fluid restriction should be explained to the rational patient. Greater efforts are required to prevent the confused patient from drinking more than the prescribed quantity of fluid. Signs should be posted on the door and bed stating that fluid restriction is mandatory; the water pitcher should be removed from the bedside; and visitors should be instructed not to give fluids to the patient. A strict intake-output record should be maintained, and fluid

administration should be spaced over the 24 hours. Sometimes the nursing staff overlooks the volume of fluid the patient receives intravenously, either for maintenance or as a vehicle for "piggyback" medications. Since fluid restricted to 500 or 700 ml daily refers to the *total* amount of fluid intake, *all* fluid—orally and intravenously—must be considered.

The nurse should study intake-output records of SIADH-prone patients since such records may predict hyponatremia by revealing a fluid intake grossly in excess of output. Accurate daily weights also help detect water retention. Even though there is a gross excess of water in the body, the patient usually will not appear edematous.

Prevention of the development of SIADH demands being aware of its causes. Early detection is also of prime importance; this can be accomplished by repeated laboratory determinations on patients with an SIADH-prone condition. Of first importance in the laboratory determinations is measurement of the serum sodium.

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New information from
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Through terminals at more than 1,400 locations in the United States and other countries.

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center linked to the computer system of the National Library of Medicine (NLM).

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Tues . . . 3 a.m. to 9 p.m. EST
Fri . . . 3 a.m. to 9 p.m. EST

How Is It Searched?

By entering an author's name or any combination of words appearing in the title, abstract, or index term fields.

Search results can be viewed or printed locally at terminals. Longer searches can be printed overnight at NLM and mailed to users the next day.

What Does a Search Cost?

Charges for searches vary from library to library but usually are based on the terminal connect time, the amount of output, and the time required to formulate the search.

How Can an Organization Become a Search Center?

By applying to the ICRDB Program or the National Library of Medicine for an on-line access code.

Centers in the U.S. are charged \$15 per connect hour during prime

time and \$8 during nonprime time. Off-line printouts cost 15¢ per page.

Equipment Required

A commercially available teletypewriter or TV-like terminal and teleprinter coupled to a standard telephone line.

Training Required

One week of instruction at NLM.

Other ICRDB Supported Projects

- Cancer Information Dissemination and Analysis Centers (CIDACs)
- Current Cancer Research Project Analysis Center (CCRESPAC)
- Clearinghouse for ongoing work in cancer epidemiology
- Committee for International Collaborative Activities (CICA)
- Scientist-to-Scientist Information Exchange programs
- Cooperation with cancer centers and other organizations around the world (including WHO, PAHO, UICC, IARC, etc.)

For more information write to:

ICRDB Program
National Cancer Institute
Westwood Building
Room 10A18
Bethesda, Maryland 20205
Phone (301) 496-7403

NCI Offers DES Booklets

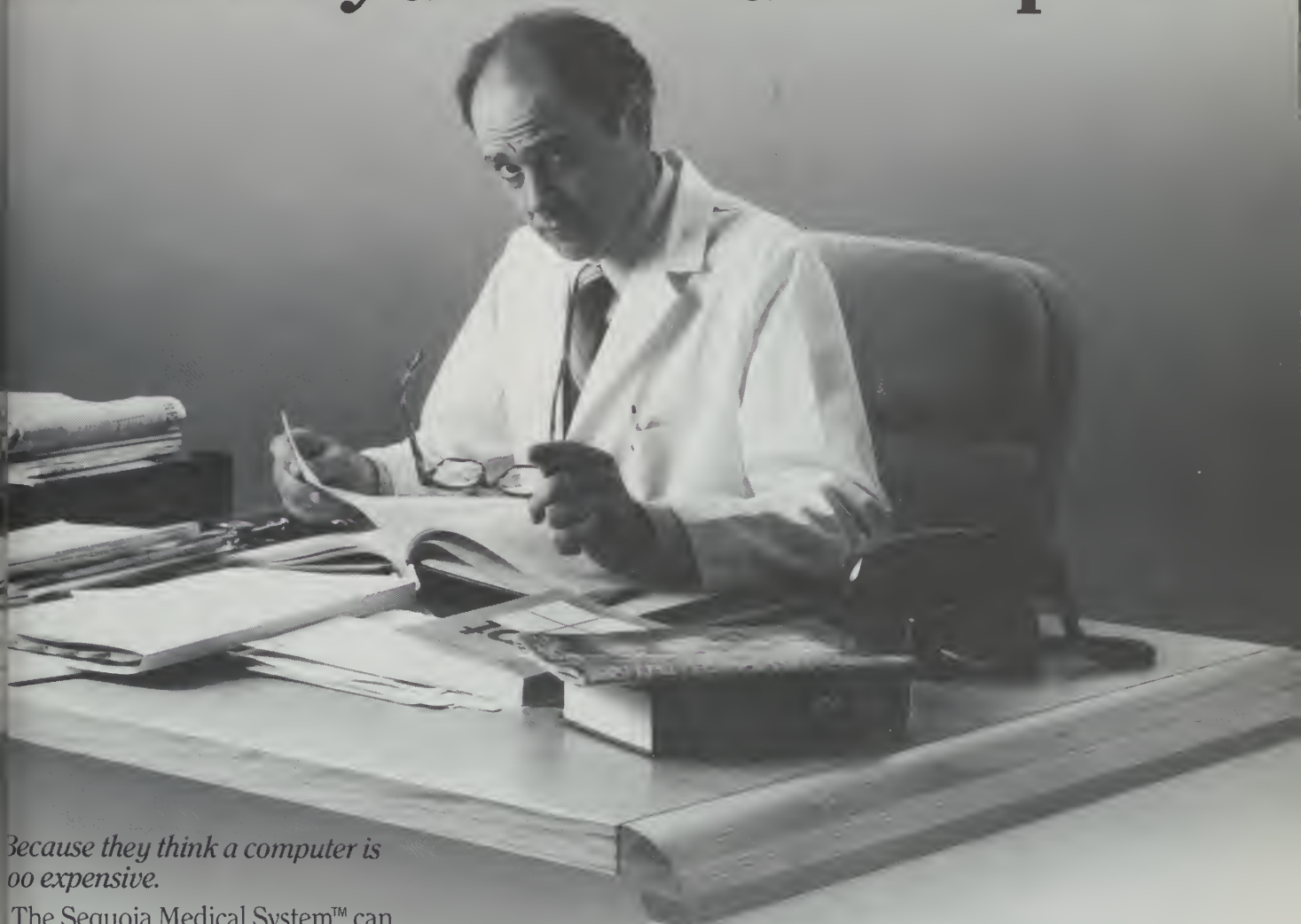
The National Cancer Institute will provide, free of charge, publications for the information of physicians and for the information of patients and the public.

"Prenatal Diethylstilbestrol (DES) Exposure: Recommendations of the DESAD Project" and "Atlas of Findings in the Human Female After Intrauterine Exposure to Diethylstilbestrol" are written for physicians.

"Questions and Answers About DES Exposure" and "Were YOU or Your Daughter or Son Born after 1940?" are designed especially for patients.

These publications may be requested by writing to Office of Cancer Communications, Dept. DES, Building 31, Room 10A19, National Cancer Institute, Bethesda, Maryland 20205, with a statement of the quantity of each booklet that is desired.

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RONALD G. BLANKENBAKER, M.D.
State Health Commissioner

New information from
Office of the Commissioner
Indiana State Board of Health
1330 W. Michigan St.,
Indianapolis, Ind. 46206
317-633-8400

PUBLIC HEALTH NOTES

St. Louis Encephalitis

Public health authorities and the medical professions in Indiana are expressing considerable concern over the persistent and increased appearance of the St. Louis encephalitis virus in the wild bird population of the state.

While the problem at this time appears to be concentrated in Knox County, officials fear the virus may show up in other parts of Indiana as the season progresses. Discovery of the problem in the bird population was the result of an Indiana State Board of Health arbovirus surveillance program, which is conducted on the assumption that if the virus is discovered in the bird population, action may be taken to eradicate the mosquito vectors so that the human population is protected.

Since the beginning of April, more than 2,800 blood samples have been collected from wild birds in 27 counties and tested for antibodies to three mosquito-borne encephalitis viruses: St. Louis encephalitis (SLE), Eastern equine encephalitis (EEE), and Western equine encephalitis (WEE). Of these, 28 were positive for SLE, including 27 of 552 birds collected in Knox County. The other SLE positive bird was captured in Lake County. (In addition, one bird pos-

itive for WEE was collected in Allen County.)

Although SLE virus activity appears geographically limited thus far, extremely high levels of *Culex pipiens*, the vector mosquito, have been reported from several areas of the state. Not only are the counts of *C. pipiens* unusually high, but these populations began building one month earlier than has been noted in previous years.

St. Louis encephalitis is both endemic and occasionally epidemic in Indiana. Since 1955, epidemics have occurred at intervals of four to nine years. The most recent, and largest, epidemic occurred in 1975 when 323 Hoosiers contracted the disease and 17 died. Last year, a focal outbreak occurred at Vincennes where seven cases were confirmed and several others suspected.

Encephalitis is one of the reportable diseases in Indiana. In addition to reporting, if practicing physicians are confronted with patients who display symptoms of encephalitis or viral meningitis, blood samples should be drawn and submitted to the State Board of Health laboratory for analysis. The first serum specimen should be obtained during the first week of ill-

ness and the second at least 10 to 14 days later. To check for echo and coxsackie viruses, specimens for virus isolation also should be sent, including cerebrospinal fluid, stool specimens and throat swabs or throat washings.

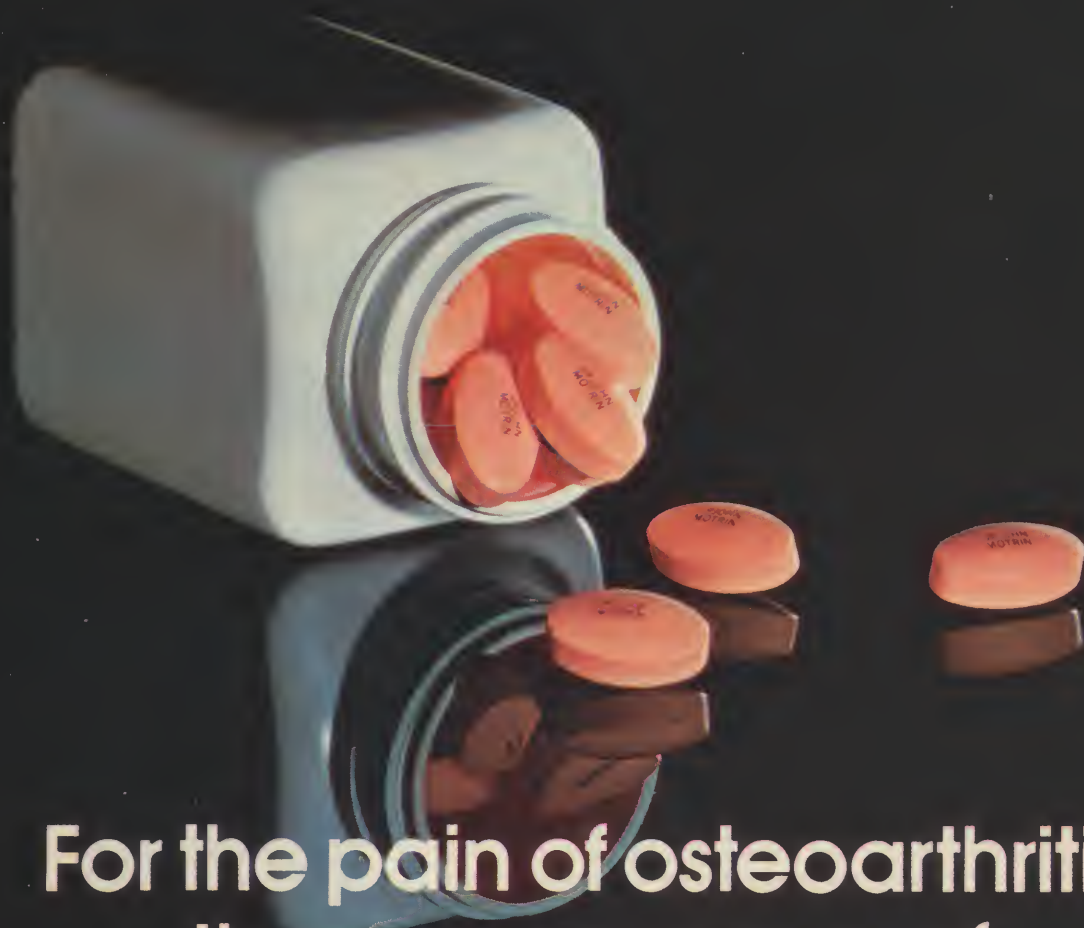
Specimens for virus isolation should be promptly frozen and shipped (packed on dry ice in an insulated carton) to the Virology Division, Bureau of Laboratories, Indiana State Board of Health, 1330 W. Michigan St., P.O. Box 1964, Indianapolis 46206. Serology specimens need not be frozen (don't freeze whole blood). Information accompanying specimens should include date of onset, date of collection of specimen, suspected diagnosis, and brief clinical history. When possible, forms and containers supplied by the State Board of Health should be used.

The importance of reporting this disease when seen or suspected and of obtaining laboratory specimens is obvious to all and gives physicians and public health officials alike the only accurate picture of the disease incidence in the state.

For assistance, contact Charles L. Barrett, M.D., director of the Division of Communicable Disease Control, State Board of Health, Indianapolis, at (317) 633-8422.

NEXT MONTH: The Journal will publish its annual pre-Convention issue. (The post-Convention issue will be published in December.)

The Association's 1981 Annual Convention will be conducted Oct. 23-26 at the Sheraton West Hotel in Indianapolis.



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Upjohn

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Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other non-steroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. Fluid retention and edema have been associated with *Motrin*; use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions: Aspirin: used concomitantly may decrease *Motrin* blood levels.

Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness*, headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

*Incidence Less Than 1%—Probable Causal Relationship***

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

*Incidence Less Than 1%—Causal Relationship Unknown***

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under "Probable Causal Relationship" (PCR) if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under "Causal Relationship Unknown" if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

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The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

*"for religious, charitable, scientific,
literary or educational purposes"*

BOOK REVIEWS

Cardiac Arrhythmias in the Active Population: Prevalence, Significance and Management

Edited by D. A. Chamberlain, H. Kulbertus, L. Mogensen, et al. Copyright 1980, Astra Pharmaceutical Products, Inc., Worcester, Mass. 149 pages, with illustrations.

A litany of reports on cardiac arrhythmias seen in the hospital setting have appeared. Little attention, however, has been paid to arrhythmias which occur in the active population. The prevalence, significance, and management of arrhythmias in these two groups may be quite different. Indeed, long-term Holter monitoring in the apparently healthy population has shown that virtually all cardiac arrhythmias may occur with or without symptoms. Their prevalence tends to increase with age. Many of these arrhythmias are best left untreated. Some require therapy for symptomatic or prognostic reasons. This book gives comprehensive up-to-date information on the most common arrhythmias encountered in an out-patient practice.

International in scope, this text also details the use of all standard and many investigational drugs. Amiodarone, for example, is probably the best choice for pro-

phylaxis against supraventricular tachycardia associated with the Wolff-Parkinson-White syndrome. A chapter on anti-arrhythmic drug sales in different countries is of considerable interest. Money spent on all anti-arrhythmic drugs per 1,000 inhabitants in England is one-half of that spent in the U.S. and one-fourth of that spent in Sweden. Are the Swedes over-medicated? Are the English under-medicated? With the increased exposure of patients to EKG equipment, and of doctors to new drugs, an increased use of anti-arrhythmic drugs can be expected.

This book will help prevent an unwarranted epidemic of such drug use. It is happily unencumbered by jargon and will appeal to family practitioners. Those who have difficulty obtaining a copy should contact their ASTRA pharmaceutical representative.

ALLAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

AACN's Clinical Reference for Critical Care Nursing

Edited by Marguerite R. Kinney, Cynthia B. Dear, Donna R. Packa and Dorothy M. N. Voorman. Copyright 1981, McGraw-Hill, Inc., New York. 1,229 pages, with illustrations. \$44.

While clinical competence should remain the chief status symbol of a critical care nurse, Board Certification by the American Association of Critical Care Nurses provides a worthy measure of this professional goal. This book meets the educational needs of those highly motivated, caring individuals who aspire to AACN certification. Conceptual foundations, special procedures, and the hazards of the intensive care environment are all well covered.

This text also lays the groundwork for a major shift in perspective: the real I.C.U. client is the family. The patient and his family must not be considered separate components. Hence, a useful assessment tool, "the genogram," is described. This depicts the historical development of the family and provides significant insights into family events, roles, emotional issues, and coping. Patient and family teaching is emphasized as this has been shown to foster learning, decrease anxiety, allow better compliance, shorten hospitalization, and decrease readmission rates.

In addition to humanizing critical care, nurses must exhibit many technical and observational skills. Accordingly, this book reconsiders the level of abstraction of many medical concepts. It even quantitates, for instance, how many clicks and gurgles per minute constitute the phrase "normal bowel sounds!" Because an understanding of pathophysiology provides the best rationale for patient management and nursing intervention, this book stresses the application of basic science.

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Occasional errors, such as the statement that sodium is actively transported by the kidney, (physiologists now believe that chloride is the ion that is actively transported) occur because the authors rely heavily upon secondary sources. For the most part, however, surprisingly current information is presented: e.g., the use of fresh frozen plasma to fortify septic patients suffering from "consumptive opsinopathy," balloon pumping for septic shock, etc.

"The future of critical care nursing and the quality of care of the critically ill patient will be determined by those who study these pages." This book should thus be part of all critical care unit libraries.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

Manual of Cardiac Surgery, Vol. I

Bradley J. Harlow, Albert Starr and Fredric M. Harwin.
Copyright 1980, Springer-Verlag New York, Secaucus,
N.J. 204 pages, \$112.

Magnificently illustrated and thoughtfully presented, the *Manual of Cardiac Surgery* is rewarding reading for those of us involved in the daily practice of cardiac surgery. The book undoubtedly reflects the evolving practice of Dr. Starr and his group based upon his pioneering efforts and vast experience. Like most manuals, the emphasis is on the practical approach. While theoretical considerations, e.g., biochemical and physiological principles are not ignored, they are presented as a thoughtful lead-in to the actual practice of cardiac surgery.

Perhaps the greatest value of this book can be found in its ability to make the reader consider his or her own surgical practice. Are my techniques similar to those of the authors? If not, why do they differ? This self-examination is so evidently important but infrequently done after one leaves residency training. In regard to surgical training programs, I cannot recommend too highly this manual as a standard of contemporary cardiac surgical practice for the beginning surgeon—a place to start. The section on suturing techniques is a revelation.

The authors are to be commended for their thoroughness and succinct presentations. From the pre-operative preparation through the anesthetic induction, techniques of surgery, and into the post-operative period, the reader passes easily and quickly, gaining new insights and an appreciation for the extraordinary detail required for the proper care of these patients. While the reader may not completely agree with everything that is presented, he or she will find that the authors make a cogent case for their practices.

In summary, this is a well conceived and sensibly presented manual of contemporary cardiac surgery. No doubt it will have to be drastically revised within five to

10 years as this field continues to radically evolve. But, for now, it remains an excellent example of "how to do it" and why. We look forward to future volumes.

JOHN F. ANSBRO, M.D.
Evansville
Cardio-Vascular Surgery

VAN NOSTRAND REINHOLD has released *Handbook of Vitamins, Minerals and Hormones, Second Edition*. The author is Roman J. Kutsky, Ph.D. It is the only all-inclusive compendium on vitamins and hormones and now includes minerals as well. \$24.50.

A NEW BOOKLET published by Hewlett-Packard discusses trend displays of heart rate variability and respiration in neonates and techniques using the HP 78801 Neonatal Monitor. The 45-page booklet is entitled *The ABC of CRG with the Neonatal Monitor*.

DELL BOOKS has released *Best Bets For Babies*. It was written by Brooke McKamy Beebe to explain to the uninitiated the details of proper care for the baby. The author collected the advice from a network of parents to whom she applied for assistance when she was caring for her firstborn. Further authority was obtained from pediatricians. \$5.95.

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FUTURE FILE

Newborn Symposium in Louisville

Lewis A. Barness, M.D., will be the 1981 Distinguished Louisville Pediatric Society Lecturer on Wednesday, Oct. 28, at noon in the Health Sciences Center auditorium, Abraham Flexner Way. He will discuss "Nutrition in Older Children."

In making the announcement, the Department of Pediatrics, University of Louisville School of Medicine, also unveiled its plans for the 15th Annual Newborn Symposium on Oct. 29 and 30. It, too, will be held in the Health Sciences Center auditorium. Participants will be Dr. Barness, Dr. John Johnson, Dr. James A. Lemons, Dr. Grant Morrow III, Dr. Griffith E. Quinby Jr. and Dr. Joseph B. Warshaw.

For details, contact Billy F. Andrews, M.D., Department of Pediatrics, University of Louisville School of Medicine, Louisville, Ky. 40292.

CME Meeting in Indianapolis

A regional CME meeting sponsored by the American College of Physicians will be conducted in the Hilton Hotel in Indianapolis on Nov. 20. All physicians are privileged to attend. For full information write Walter J. Daly, M.D., Emerson Hall, Room 317, 1100 W. Michigan St., Indianapolis 46223.



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Caylor-Nickel to Host Seminar

A seminar on Human Sexuality, sponsored by Caylor-Nickel Hospital, will be held at the Brown County Inn, Nashville, Ind., Sept. 18-20.

The seminar's purpose is to assess human sexual behavior, learning to recognize, evaluate and deal with sexual problems of patients. Speakers will include Dr. William R. Keye and Dr. Freida M. Stuart of the University of Utah Medical Center, and Dr. Paul H. Gebhard, director of the Institute for Sex Research at Indiana University.

For details, contact Jane Thompson, Caylor-Nickel Hospital, Bluffton, Ind. 46714. Tel: (219) 824-3500, Ext. 2103.

ACIP to Hold Annual Convention

The sixth annual convention of the American College of International Physicians will be held Aug. 19-23 at the Chicago Lake Shore Hotel. Dr. Felix Millan of East Chicago will assume the presidency.

Scientific sessions will be held on three successive days during morning hours. Category 1 CME credits for 19 hours will be awarded.

For further information, contact the College's office at 3030 Lake Ave., Fort Wayne, Ind. 46805. Tel: (219) 424-7414.

Postgrad Pharmacology Course

The 1981 Postgraduate Course in Clinical Pharmacology, Drug Development and Regulation will be conducted by the University of Rochester School of Medicine and Dentistry Nov. 9-13. Tuition is \$830, which includes working lunches and a formal dinner. Registration is limited and will be made on a first-come, first-served basis. Cancellations after Oct. 16 will be subject to a \$30 charge.

Write to William M. Wardell, M.D., University of Rochester Medical Center, 601 Elmwood Ave., Rochester, N.Y. 14642.

Clinical Cytopathology Program

The 23rd Postgraduate Institute for Pathologists in Clinical Cytopathology is to be given at Johns Hopkins University School of Medicine March 22 to April 2, 1982.

The program is designed for pathologists certified or qualified by the American Board of Pathology or its international equivalent. A loan set of slides will be sent to each participant for home-study during February and March. Credit hours are 125 in Category 1. Apply before Jan. 27, 1982.

Write to John K. Frost, M.D., 610 Pathology Bldg., Johns Hopkins Hospital, Baltimore 21205.

Computer Tomography Conference

"Computer Tomography Scanning of the Brain" will be the subject of a consensus development conference sponsored by the National Institutes of Health Nov. 4-6 in Masur Auditorium, NIH Clinical Center (Bldg. 10).

For program information write to Dr. Michael D. Walker, Federal Bldg., Room 8A08, 7550 Wisconsin Ave., Bethesda, Md. 20205. For administrative information write to Peter Murphy, Prospect Associates, 11325 Seven Locks Road, Suite 220, Potomac, Md. 20854.

Med Staff Leadership Seminar

A seminar on Medical Staff Leadership will be conducted by the Southern Medical Association Oct. 1 and 2 at Lake Ozark, Missouri. Tuition for non-members will be \$170. The course carries Category 1 credit with the AMA and 11 elective hours with the AAFP.

For program and details write Jeanette Stone, Registrar, P.O. Box 2446, 2601 Highland Ave., Birmingham, Alabama 35201.

Perlstein Lecturer Announced

Doris P. Howell, M.D., Professor of Pediatrics at the University of California at La Jolla, will be the John I. Perlstein Lecturer at the University of Louisville School of Medicine. The lecture will be held at noon, Monday, Sept. 14, in the Health Sciences Center auditorium, Abraham Flexner Way, Louisville. Members of ISMA are invited to attend.

CME Program in Hawaii

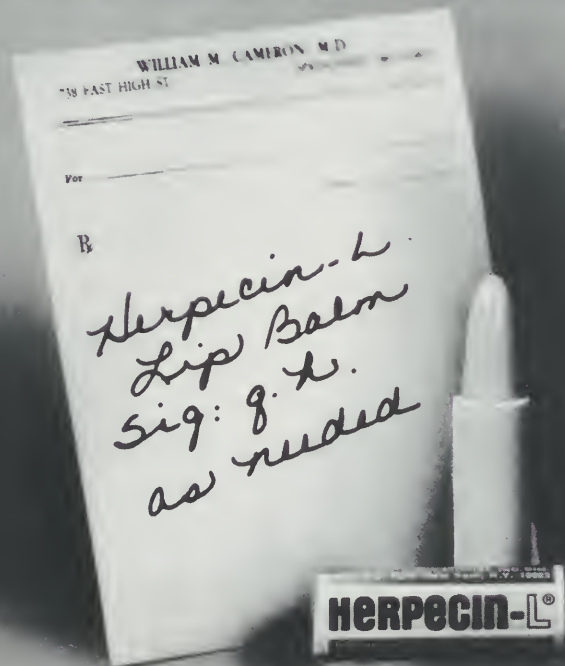
"Behavioral Medicine and Primary Care in the 80s" will be the subject of a CME program to be sponsored by the University of South Carolina School of Medicine Dec. 4-11 at the Ilikai Hotel in Honolulu, Hawaii.

Registration and fee payment—\$300—should be accomplished by Aug. 15. Sixteen hours of AMA Category 1 credit will be awarded, as well as 16 hours of AAFP prescribed credit.

Contact Jeri McClain, USC School of Medicine, Office for Academic Affairs, Columbia, S.C. 29208. Tel: (803) 777-7470.

CONTINUED ON PAGE 540

Dx: recurrent herpes labialis



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NEWS NOTES

Byssinosis Proceedings Available

Byssinosis (pulmonary reaction to cotton dust exposure) was the subject of an International Conference in 1980. The proceedings were published recently as a Supplement to the April, 1981 issue of *CHEST*, the official journal of the American College of Chest Physicians. Inquiries should be directed to the Division of Publications of the College at 911 Busse Highway, Park Ridge, Ill. 60068.

AMA Offers Complimentary Booklet

Practice expenses and gross income more than doubled during the 1970s, with the proportion of practice expenses to gross income rising. These and other changes in average income, expenses, fees, visits, hours worked, and waiting time for the typical office-based U.S. physicians were documented by the AMA staff and are described in the article, "Physicians' Practice Experience During the Decade of the 1970s."

The article was originally published in the Dec. 5, 1980 issue of *JAMA*. It now is available in complimentary booklet form from the Center for Health Services Research and Development, AMA headquarters.

MEDICAL DIRECTOR

Rapidly expanding mental health center in need of a Medical Director who would be responsible for the administration of medical care and for the medical treatment of all patients of the Center. Specific duties will include organization and performance of the Quality Assurance Program, preventative and consultative services, medical records supervision, provision of medical evaluations, scheduling of psychiatric time for case staffing, and 24-hour psychiatric coverage. Excellent opportunity for a dynamic psychiatrist interested in community mental health and seeking a challenge. Applicants must be board certified or eligible in Psychiatry and licensed in the State of Indiana. Must have successfully completed a 3-year residency approved by the American Board of Psychiatry and Neurology. At least 2 years experience in a related field and/or experience working with a multi-disciplinary staff is preferred. Send resume to:

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New ISMA District Officers

New officers have been elected in seven ISMA medical districts:

1st District: Dr. John D. Pulcini, Evansville, president; Dr. Steven Elliott, Evansville, vice-president; and Dr. Ken McKinney, Newburgh, secretary-treasurer.

2nd District: Dr. Thomas E. Bailey, Linton, president; Dr. Betty J. Dukes, Dugger, secretary-treasurer. The newly elected 2nd District trustee is Dr. Ralph W. Stewart, Vincennes; the new alternate trustee is Dr. Paul J. Wenzler, Bloomington.

4th District: Dr. Ricardo C. Domingo, Greensburg, president; Dr. Henry W. Conrad, Lawrenceburg, vice-president; and Dr. Robert P. Acher, Greensburg, secretary-treasurer. Dr. Alvin L. Henry, Columbus, was re-elected as the nominee for the Blue Shield Board.

5th District: Dr. Franklin J. Swaim, president; Dr. Daniel J. Dwyer, Rockville, secretary-treasurer. Dr. Paul Siebenmorgan, Terre Haute, was re-elected 5th District trustee.

7th District: Dr. Warren L. Gray, Martinsville, president; Dr. Malcolm O. Scamahorn, Pittsboro, secretary-treasurer. Dr. H. Marshall Trusler, Indianapolis, was elected trustee, replacing Dr. John G. Pantzer; Dr. Garry L. Bolinger, Indianapolis, was elected alternate trustee. Dr. B. T. Maxam was re-elected Blue Shield representative.

8th District: Dr. Carol R. Chambers, Union City, president; Dr. Susan K. Pyle, Union City, secretary-treasurer. Dr. Richard L. Reedy, Yorktown, was elected trustee, and Dr. William C. Van Ness II, Summitville, was elected alternate trustee.

9th District: Dr. Lowell R. Stephens, Covington, president; Dr. Theodore C. Person, Veedersburg, secretary-treasurer.

VA Names Top Two Administrators

Robert P. Nimmo, combat veteran of World War II and the Korean Conflict, also a former California state senator, has been named administrator of veterans affairs by President Reagan. His deputy administrator will be Vietnam veteran Allen B. Clark, Jr. of Texas. Senate hearings on confirmation of Nimmo were scheduled last month. Clark's hearing had not been announced at press time.

Patent Bill Gets Committee OK

The bill introduced in the U.S. Senate which would extend the life of a patent for the period of time that the patented product could not be marketed because of governmental approvals (S 255) has been recommended for approval by the Senate Judiciary Committee.

AAP Recognizes Dr. Gardiner

Dr. Sprague Gardiner, Indianapolis, was recognized recently by the American Academy of Pediatrics for his leadership in the evolution of a national health policy for the delivery of perinatal care.

Dr. Gardiner was one of the original authors of a policy statement on regionalized perinatal care, adopted by the AMA delegates in 1971. He served as chairman of the national committee to develop guidelines which aided in formation of cooperative plans for hospitals of geographic regions or communities with resulting decrease in maternal, perinatal and infant mortality.

Your Hoosier Doctor Says . . .

Four new titles have been added to the "Your Hoosier Doctor Says . . ." series being developed by ISMA's public relations department. They are:

- Meals and Nutrition Can Be a Problem for the Elderly
- Senility May Be Caused by Curable Ailments
- Falls Are a Major Threat to the Elderly
- Don't Leave Good Health in Your Later Years to Chance

Other titles and ordering information were listed in the June issue of THE JOURNAL on Page 394.

Child Abuse Catalog Available

The National Committee for Prevention of Child Abuse (NCPCA) publishes educational materials that deal with child abuse, child abuse prevention, and parenting. New titles are: An Approach to Preventing Child Abuse, Physical Child Neglect, Emotional Maltreatment of Children, Growth and Development Through Parenting, and Parent-Child Bonding: The Development of Intimacy.

The NCPCA Catalog, which describes these materials and gives ordering information, is available free of charge. Write or call NCPCA, Publishing Department, 332 S. Michigan Ave., Suite 1250, Chicago 60604, (312) 663-3520.

Two Hoosiers Named to USP Panel

Bruce H. Mock, Ph.D., Department of Radiology, Indiana University School of Medicine, has been appointed to the U.S. Pharmacopeia Advisory Panel on Radiopharmaceuticals. Roscoe E. Miller, M.D., chief of Gastrointestinal Radiology at the I.U. School of Medicine, recently was appointed chairman of this panel. The panel will work with the U.S. Pharmacopeial Convention (USP) in its drug-use information development programs.



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NEWS NOTES

Home Computer Used in Hospital ICU

The Intensive Care Unit in Parkview Memorial Hospital, Fort Wayne, enjoys a clinical computer service due to the home type computer installed and programmed by Dr. John R. Stanford, chairman of the ICU committee. It calculates six indices of cardiac function from data obtained from the Swan-Ganz catheter. Branching programs cover such useful knowledge as calculations and protocols for such procedures as arterial blood gas and electrolyte analysis, intravenous hyperalimentation, derived cardiovascular variables, medical literature search, ventilator management and drug interaction.

28 New Vet Centers Planned

The VA Medical Service plans to open 28 new Vet Centers for counseling Vietnam era veterans. Such centers, originated in 1979, are located away from VA hospitals and have an appeal to those veterans who need counseling but want to stay away from hospitals. An estimated 67,000 veterans have already visited the existing centers, which are known as "storefront" centers and usually are located in or near a downtown area.

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Diabetes Research Awards Announced

The Juvenile Diabetes Foundation will receive applications for postdoctoral fellowships in diabetes research and for career development in diabetes research for the 12-month period July 1, 1982 to June 30, 1983. Applications must be postmarked not later than Oct. 1, 1981. For full details write to the Foundation at 23 E. 26th St., New York, N.Y. 10010.

Ronald McDonald House Slated

Families of seriously ill children at James Whitcomb Riley Hospital for Children and other hospitals soon will find a home away from home at the Ronald McDonald House, to be built at the Indiana University Medical Center.

The facility will serve as a low or no cost temporary home for families whose children are being treated at Riley. It will allow parents to stay near their children without expensive hotel accommodations.

For more information, or to make a tax-deductible contribution, write Our House, Inc., P.O. Box 68662, Indianapolis 46268.

X-Ray Film to Become Obsolete?

A diagnostic x-ray process that promises to reduce radiation exposure and eliminate the need for x-ray film has been developed by scientists at The University of Texas M. D. Anderson Hospital and Tumor Institute.

The process also may eliminate the need for photographic film in many industries.

Named the "Anderson System," the new process recently has had patent applications filed by The University of Texas System.

The heart of the system is a reusable plate that can take the place of film, including traditional x-ray film, in almost any photographic situation. A laser light beam and a computer complete the system. Together, they produce highly detailed pictures when the plate is electrically charged and exposed to light or x-rays.

Green Gets Bibler Award

Dr. Frank H. Green of Rushville has received the Lester D. Bibler Award of the Indiana Academy of Family Physicians. The award, highest given by the organization, credited Dr. Green with "dedication and effective leadership in furthering the development of family medicine in the State of Indiana."

The award was presented at the Academy's annual President's Banquet in Indianapolis. Dr. Green was president of the Indiana Academy from 1956-57. He was an Indiana delegate to the AMA from 1962-72. He presently is a board member of the Indiana University Medical Alumni Association.

Here and There . . .

. . . **Dr. Nancy C. A. Roeske**, an Indianapolis child psychiatrist, has been installed as president of the Indiana Psychiatric Society, replacing **Dr. Sherman Franz** of Columbus.

. . . **Dr. Primo P. Milan** of Shelbyville has been named a diplomate of the American College of Radiology.

. . . **Dr. R. Anthony Marrese** of Evansville presented a scientific exhibit on "The Improved Techniques of Metrizamide Myelography" at the April meeting in Boston of the American Association of Neurological Surgeons.

. . . New members of the American College of Radiology are **Dr. Benny S. Ko** of Terre Haute, **Dr. Margaret J. Milos** of Valparaiso, **Dr. Lionel A. Painchaud** of Muncie, **Dr. Stephen R. Phillip** and **Dr. Edward C. Weber** of Fort Wayne, **Dr. Steven E. Wdowka** of Kokomo, and **Dr. William D. Shidal** of New Castle.

. . . **Dr. Walter F. Florczak** of Hammond spoke on "A Surgeon's View of Coronary Artery Disease" at a recent meeting of the Community Mended Hearts Club in Michigan City.

. . . **Dr. Richard C. McPherson** has replaced **Dr. Eli Blair Harter** on the Lafayette Board of Health.

. . . **Dr. Richard E. Galbreath** of Warsaw has been appointed to the public relations committee of the Indiana Academy of Family Physicians for a three-year period.

. . . **Dr. Guy H. Waldo** of Bedford has received two Distinguished Professional Education Awards from the Indiana Heart Association, Southern Division.

. . . **Dr. Robert M. Maurer** of Brazil was the featured speaker at a May meeting in Brazil of the Clay County Chapter, American Diabetes Association.

. . . **Dr. Steven R. Gable** of South Bend addressed a May meeting of the Multiple Sclerosis Support Group in South Bend.

. . . The Bremen (Ind.) Schools Auditorium has been named after the late **Beth Bowen** and her husband, former **Governor Otis R. Bowen**. Dr. Bowen practiced in Bremen for many years.

. . . **Dr. Carl K. Matlock** of Greenfield has been elected chief of the medical staff, Hancock County Memorial Hospital.

. . . **Dr. Maurice E. John Jr.** of Jeffersonville presented a slide-talk show on his recent trip to Russia during a May meeting of the Deputy Homemakers. In Russia, he studied a new technique to surgically correct nearsightedness.

. . . **Dr. Paul E. Stroud** of Beech Grove addressed a June meeting of the Caesarean Association for Resources and Education.

. . . **Dr. Francis W. Price Jr.** of Indianapolis has been honored by the Board of Directors, University Heights Hospital, for his years of service to the institution.

. . . **Dr. Kerry J. Newman** of Evansville has been elected president of the medical staff, Welborn Memorial Baptist Hospital; **Dr. Marshall S. Miller** was elected president-elect and **Dr. John Behman**, secretary-treasurer.

. . . **Dr. Leon J. Garrison** of Gas City recently was honored for 50 years of medical service by the Grant County Medical Society.

. . . **Dr. Robert W. Dyar** of Indianapolis has been elected a vice-president of the Indiana Society to Prevent Blindness.

. . . **Dr. George R. Weir** of Brownstown was guest speaker at a June meeting in Seymour of the Jackson County Chapter, American Diabetes Association.

. . . **Dr. Helen B. Barnes** of Greenwood has been named secretary-treasurer of the Indiana Association of American Physicians and Surgeons.

. . . **Dr. Jerry L. Stucky** of Fort Wayne has been elected president of the Indiana Academy of Family Physicians. He is director of the Fort Wayne Family Practice Residency Program.

. . . **Dr. Rai Swaroop**, a Huntingburg cardiologist, addressed a May meeting of the Huntingburg-Holland Business Women.

. . . **Dr. Richard G. Huber** of Bedford has been installed as speaker of the Congress of Delegates, Indiana Academy of Family Physicians.

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OBITUARIES

John C. Carroll, M.D.

Dr. Carroll, 63, a Decatur physician and surgeon, died April 8 at Lutheran Hospital, Fort Wayne.

He was a 1942 graduate of Loyola University Stritch School of Medicine and was an Army veteran of World War II.

Dr. Carroll was president-elect of the Adams County Medical Society and was a member of the American Society of Abdominal Surgeons.

Harter L. Leatherman, M.D.

Dr. Leatherman, 83, a retired Indianapolis physician, died May 25 at home.

He was a 1926 graduate of Columbia University College of Physicians and Surgeons, New York, and was a veteran of World War I.

Dr. Leatherman, who retired in 1977, was a member of the ISMA Fifty Year Club and was a 50-year staff physician at Methodist Hospital, Indianapolis.

Paul P. Bailey, M.D.

Dr. Bailey, 83, a retired Fort Wayne urologist, died May 1 at his home.

He was a 1920 graduate of Indiana University School of Medicine and was an Army veteran of the Mexican border campaigns and of both world wars.

Dr. Bailey, a former Allen County health commissioner, served on the County Board of Health from 1940 until 1971, except for military service during World War II. He was a member of the ISMA Fifty Year Club and was certified by the American Urological Association.

Victor E. Schlossberg, M.D.

Dr. Schlossberg, 50, a Mishawaka internist, was killed May 13 in a head-on automobile collision at the South Bend-Mishawaka city limits.

He was a 1955 graduate of Indiana University School of Medicine and was a Navy veteran.

Dr. Schlossberg had been director of the progressive care unit at St. Joseph Hospital, Mishawaka. He was a member of the American College of Physicians, the American College of Chest Physicians and the American Society of Internal Medicine. He was certified by the American Board of Internal Medicine.

Robert L. Dilts, M.D.

Dr. Dilts, 65, an Indianapolis physician who specialized in peripheral coronary disease, died May 24 at Wishard Memorial Hospital, Indianapolis.

He was a 1942 graduate of Indiana University School of Medicine.

Dr. Dilts was a member of the American Academy of Family Physicians, American Geriatrics Society, American Diabetes Association and the American Society of Clinical Hypnosis.

Matthew Cornacchione, M.D.

Dr. Cornacchione, 73, a retired Indianapolis physician, died May 19 in Sarasota, Fla., where he had lived the past four years.

He was a 1931 graduate of Indiana University School of Medicine and was a World War II Army veteran.

Dr. Cornacchione served as chief medical officer of disability determination for the Indiana office of the Social Security Administration from 1973 to 1976. He was a member of the American Academy of Family Physicians.

Clarence C. Herzer, M.D.

Dr. Herzer, 83, a retired Evansville physician, died May 23 at Deaconess Hospital, Evansville.

He was a 1926 graduate of the University of Tennessee College of Medicine. He was a World War I veteran and served in the National Guard during World War II.

Dr. Herzer, who retired in 1975, was a past president of the Vanderburgh County Medical Society and of the Deaconess Hospital medical staff. He was a member of the ISMA Fifty Year Club.

John DeBrot, Jr., M.D.

Dr. DeBrot, 48, an anesthesiologist at Winona Memorial Hospital, Indianapolis, died May 14 at the hospital.

He was a 1958 graduate of Indiana University School of Medicine and was an Army veteran.

Dr. DeBrot, a former secretary of the Howard County Medical Society, had lived in Indianapolis since 1967. He was a member of the American Society of Anesthesiologists and was certified by the American Board of Anesthesiology.

Wendell L. Spalding, M.D.

Dr. Spalding, 77, a Mishawaka physician, died June 6 at the home of his son, Dr. David L. Spalding, also a Mishawaka physician.

He was a 1929 graduate of the University of Michigan Medical School and was an Army veteran of World War II.

Dr. Spalding, who had practiced in Mishawaka since 1930, was a member of the ISMA Fifty Year Club. He had served four terms as president of the St. Joseph Hospital, Mishawaka, medical staff, and was a past president of the St. Joseph County Medical Society.

Harry A. Cochran, M.D.

Dr. Cochran, 71, a Fort Wayne physician specializing in occupational medicine, died April 29.

He was a 1937 graduate of the University of Pittsburgh School of Medicine and was an Army veteran of World War II.

Dr. Cochran was a member of the Fort Wayne Medical Society.



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POSITION now available in the Department of Internal Medicine for physician with subspecialty interest. 50-man multispecialty clinic in ideal location in southern Wisconsin. Contact R. E. Hassler, M.D., The Monroe Clinic, Monroe, Wisc. 53566. Tel: (608) 328-7000.

FULLTIME Emergency Department physician needed. Position available immediately. Competitive salary and liability insurance provided. Located in a new hospital in east central Indiana. Contact S. R. Myron, M.D., 500 W. Votaw St., Portland, Ind. 47371, or call collect 317-289-2694.

CALIFORNIA—DIRECTOR POSITIONS AVAILABLE. Emergency medicine physicians needed for rural northern California areas. Excellent opportunity to join growing partnership of career emergency physicians. Emergency medical residency, Board Certification or at least two years experience required. Excellent benefit package and profit sharing. Contact Judy Neal, California Emergency Physicians, 440 Grand Ave., Suite 500, Oakland, Calif. 94610, (415) 832-6400.

RETIRED PEDIATRICIAN—Let's presume that you are still interested in your field but have given up active practice. We are much in need of your wisdom and experience as advisor and counselor to our youth health magazines (8 of them) which feature health and life improvement at each level of elementary school. Do get in touch. Contact Cory SerVass, M.D., 317-636-8881.

EMERGENCY MEDICAL POSITIONS—Emergency Consultants, Inc. has select opportunities in emergency medicine available on a locum tenens or full time basis. Positions in resort and recreational areas offer flexible scheduling, competitive hourly rates, and excellent benefits including malpractice insurance. Our organization accommodates professional and personal physician goals by providing a wide variety of locations with varying patient volume. For further information, contact Emergency Consultants, Inc., Suite 121, 2240 South Airport Road, Traverse City, Mich. 49684. 1-800-253-1795, or in Michigan 1-800-632-3496.

EMERGENCY MEDICINE position available: Emergency Physician to join professional group practicing in superior emergency department in Hammond, Indiana. Contact Dr. Robert F. Guthrie at (312) 474-0014 or Emergency Care, S.C. at (312) 327-0777.

THE INDIANA STATE Department of Public Welfare has 3 positions available for physicians to work in a pleasant office atmosphere; no patient contact; no malpractice insurance required; an Indiana license of eligibility is required; competitive salary; regular working hours; excellent fringe benefits. Contact Personnel Director, Indiana State Department of Public Welfare, 701 State Office Building, 100 N. Senate Ave., Indianapolis 46204. Phone (317) 232-4746.

AVAILABLE immediately for solo or group family practice. Well trained in Db/Gyn, medicine and surgery. Any size community. Will consider E.R. or house-physician position. I have Indiana license. Call Dr. Thakkar, (512) 881-4000 days, or (512) 993-2705 evenings.

EMERGENCY MEDICINE—TERRE HAUTE: Directorship opportunity available now in modern, moderate volume trauma center with excellent specialty and subspecialty support. This metropolitan community offers many educational, recreational, and cultural amenities. Annual minimum guarantee plus production based bonus (i.e., fee-for-service). Paid professional liability insurance, flexible scheduling with no on-call involvement. For details, send credentials in confidence to John Kutchback, 970 Executive Parkway, St. Louis, Mo. 63141 or call toll-free 1-800-325-3982.

GET TAX DEDUCTIONS from Real Estate investments. Retiring physician advising best way to keep earnings is through Real Estate investments. Excellent opportunity to purchase from owner. Call 317-357-4129.

EDITOR/WRITER, new publication. Science and/or nursing background. Knowledge of cancer treatment and research. Salary to high 20s. Must be willing to relocate to Indianapolis. Write to D. Mark Robertson, P.O. Box 567B, Indianapolis, Ind. 46206.

SNOWMASS/VAIL "MEP" SKI SEMINAR on Management Enrichment for the Health Professional—Ski Snowmass, Colorado the week of December 19, 1981 or the week of March 20, 1982; or ski Vail, Colorado the week of February 20, 1982. Seminars conducted by noted doctors and management specialists to enrich your life. Trip expenses deductible for doctor and spouse. For information: MEP, An Education Corporation, 906 Cooper Avenue, Glenwood Springs, Colorado 81601; or 1-800-525-3402.

FUTURE FILE

CONTINUED FROM PAGE 528

Advanced Echocardiography Program

"Advanced Echocardiography" is the subject of an Extramural Program to be presented by the American College of Cardiology Sept. 9 to 11 at the Hyatt Regency Indianapolis. Krannert Institute of Cardiology is co-sponsor. Dr. Harvey Feigenbaum will be the director.

Write to Registration Secretary, American College of Cardiology, 9111 Old Georgetown Road, Bethesda, Md. 20014.

Community Cancer Care Seminar

The Second National Seminar on Community Cancer Care will be conducted Sept. 25, 26 and 27 at the Hyatt Regency, Indianapolis, under sponsorship of the Clinical Oncology Center and Graduate Medical Center of the Methodist Hospital of Indiana. For information write to: Office of Continuing Medical Education, 1604 N. Capitol Ave., Indianapolis 46204.

Allergy Meeting in Cleveland

The Midwest Forum on Allergy, co-sponsored by the Cleveland Allergy Society and the Ohio Allergy Society, will be held in Cleveland Oct. 2-4 at Stouffer's Inn on the Square.

The meeting is accredited for 14 AMA Category 1 credit hours.

For details and hotel reservations, contact Dr. Joseph Kelley, Cleveland Clinic, 9500 Euclid Ave., Cleveland 44106.

Polytomography of the Temporal Bone

The 25th two-day Symposium on Polytomography of the Temporal Bone will be given under the auspices of the Wright Institute of Otology at Community Hospital, Indianapolis, Sept. 26-27.

The symposium meets the criteria for 12 AMA Category 1 credit hours. Fee for the course is \$300.

Direct inquiries to The Wright Institute of Otology, Inc., Community Hospital of Indianapolis, 1500 N. Ritter Ave., Indianapolis 46219. Tel: (317) 353-5679.

Spina Bifida Multidisciplinary Seminar

The Children's Memorial Hospital, Chicago, will host a national multidisciplinary seminar on spina bifida Sept. 24-26.

Various internationally known specialists in orthopedics, neurosurgery, urology and pediatrics will serve as guest lecturers.

For information, contact David G. McLone, M.D., Children's Memorial Hospital, 2300 Children's Plaza, Chicago 60614. Tel: (312) 649-4373.

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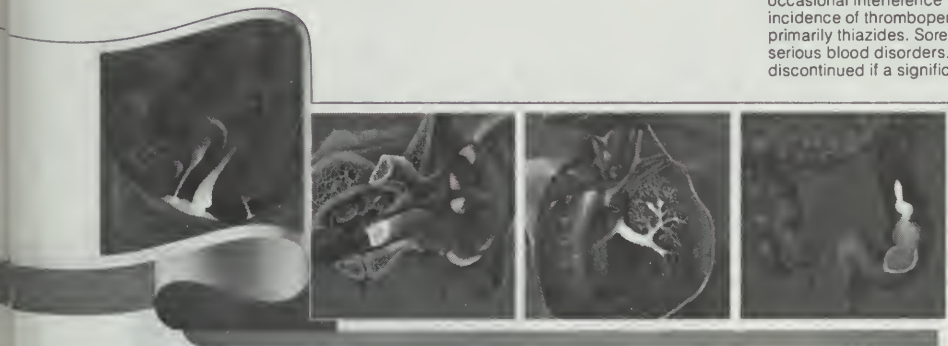
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BactrimTM (trimethoprim and sulfamethoxazole) succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
effective against both major otic pathogens... with b.i.d. convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume... on b.i.d. dosage

in shigellosis...
faster relief of diarrhea than with ampicillin²

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris*, *Proteus morganii*. It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. Note: The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonia. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β -hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: General: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema

multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness.

Miscellaneous reactions: Drug fever, chills, toxic nephrosis with oliguria and anuria, periarthritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose[®] packages of 100; Prescription Paks of 20 and 28. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose[®] packages of 100; Prescription Paks of 40. Pediatric Suspension, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint).

Suspension, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

BactrimTM succeeds

in recurrent urinary tract infections*



from site to source

Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue¹...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations¹... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae^{1,2} with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. 2. Data on file, Medical Department, Hoffmann-La Roche Inc.

BactrimTM DS

160 mg trimethoprim and 800 mg sulfamethoxazole

DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience



* due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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The JOURNAL

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INDIANA PHYSICIANS LEAD THE WAY

132nd Annual Convention of the Indiana State Medical Association
October 23-26, 1981 / Sheraton West Hotel, Indianapolis, Indiana

Feelings vs

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to decrease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgeable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) ®, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other anti-depressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

 Roche Laboratories
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Nutley, New Jersey 07110

WHAT'S NEW?

JOHNSON AND JOHNSON has introduced SOF-BAND™ High Stretch Bandage for variable stretch, softness and security with controlled compression. Especially handy in bandaging joints and other difficult areas. Comes in sterile and non-sterile in 2", 3", 4", and 6" widths by 5 yards long when stretched.

THE 3-M COMPANY features a typewriter-size copier with 200 parts fewer than most, which is convenient for use in medical offices. It automatically cuts to the proper length and makes billing an easy task. It is useful with medical forms, insurance blanks and records of varying sizes. It is quiet and easily portable, and generates little heat. Its name is the 283 copier.

KATAN B.V. of Holland announces a new plastic mask for delivery of oxygen to prematures and infants. It provides optimum mingling of gas and air flow, comfort and freedom of movement, and is large enough for the child to move around and suck its thumb. The trade name is "Medka." It is available for importation to the U.S.

TECHNICON has a pulmonary data transmitter that performs a full range of pulmonary tests including spirometry, residual volumes, MVV, closing volumes and flow-volume loops. Patient data are transmitted from the customer site by telephone to a central station in Dayton. Results are interpreted by a specialist and a printed report is returned. All charges are on a fee-for-service basis, no capital investment required.

SURGICAL DRAPING techniques are demonstrated by 3M Company representatives on request in hospitals and clinics. 3M calls the classes "wrap sessions." No charge. Brochures in three-ring binders are included. Surgical plastic drapes, specialty plastic drapes and blue fabric drapes that absorb fluids and provide an effective barrier to bacteria are all illustrated and described.

NOVO, a Danish drug maker, has succeeded in producing insulin identical to human insulin by substituting a single amino acid in the chain of pork insulin. Its U.S. subsidiary, Novo Laboratories, has FDA clearance for clinical trials of the new insulin in treatment of human diabetics.

CONTINUED ON PAGE 632

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

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ABOUT THE COVER

"Indiana Physicians Lead the Way" is the theme of this year's annual convention. The theme, selected each year by the Commission on Convention Arrangements, emphasizes the leadership of Indiana physicians in respect to advances in medicine, medical care, and staying abreast of government rules, regulations and programs that affect both physicians and their patients. For a preview of the convention, see the special section beginning on Page 605.

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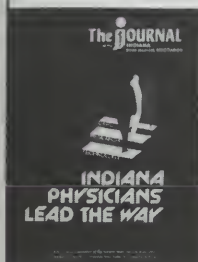
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EDITORIALS

Drug Substitution Laws: What Are the Benefits?

Drug substitution laws have been in effect long enough to provide the experience necessary for reliable appraisal of the effectiveness of the laws, both as to the actual extent of substitution and in relation to the savings that accrue to the consumer.

Current reports indicate that both these indexes are low enough to be inconsequential.

In the 1950s and 1960s all states had antisubstitution laws to protect the public against counterfeit drugs. In the alleged purpose of saving money and at the same time gaining some increased professional stature for pharmacists, many of the states, since 1970, have passed substitution legislation.

These laws have varied in details to a maximum degree. Variations have consisted of the right or the lack of right of the consumer to demand substitution, of the right of the prescriber to prohibit substitution, and, by prescribed state formularies in some cases, the denial of the pharmacists' absolute right to select the substitute.

Variations in substitution laws even extended explicitly to two states, Indiana and Texas, to the right not to have a substitution law in any form.

Medical World News quotes Dr. Theodore Goldberg of Wayne State University School of Medicine, for seven years the head of a research team to study substitution laws, as follows: "Pharmacists are not substituting, physicians are not prohibiting substitution, and consumers are not requesting substitution."

James M. Gorrell of Eli Lilly and Company, in an address before the Pharmaceutical Advertising Council (published in the May 1981 issue of *Medical Marketing & Media*), reports that, as a matter of fact, 60% of prescriptions call for single-source products (no substitution possible), about 12% are written in generic terms, and 10% of drug products have bioavailability problems. The remaining 18 to 20%, even if favored by a 50% savings, would produce only 10% savings on total drug expenditures.

The Federal Trade Commission, although it had adopted great enthusiasm for substitution, predicted that the savings would be about 5%. When applied to the average per capita drug bill in the U.S., 5% amounts to \$1.80 annually. So much for saving money.

There have been those who hoped that substitution would improve the profit margin of the retail pharmacist. Profit margins had been declining steadily, and with the onset of substitution laws further decline has been evident.



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Mr. Gorrell's conclusions are: "Expectations were laudable: reduced costs, enhanced professional stature, better pharmacy financial status, and consumer choice assured. Realizations so far have been disappointing: savings minimal, restrictions on professional prerogatives, pharmacy net profits still declining, and consumers wondering what happened."

Weight Loss: Some Food for Thought

Fad diets have come by the dozens and have gone or are going. Fads are useless in the weight losing business. What counts is the ability to consistently consume fewer calories than are metabolized each day.

Sounds easy but it's difficult for most people. Motivation is the important ingredient. However, motivation is variable in the human race. Something else is needed for most of us.

Habit is also a factor—and a most important one. Obesity is due to the habit of overeating. Reduction and maintenance of normal weight must be achieved by adoption of the habit of proper eating.

Many dieters, if they lose weight, gain it back because eating habits have not changed. Therefore, a combination of strong motivation and a willingness to change eating habits is the key to success.

The American Dietetic Association is interested in the problem. In July its Journal published a report of the result of including soup with lunch and/or dinner. The report is that it works. The soup eaters lost 20.4% while those with minor emphasis on soup lost 14.7%.

The dietitians ascribe this effect to the fact that soup contains fewer calories, contributes to slower eating, and soothes hunger pains out of proportion to caloric content.

They also recommend baked potatoe instead of French fries, apples instead of applesauce, whole fish instead of fish fillets, whole oranges instead of O.J. and hard rolls instead of white bread. Reason—more time required for food manipulation. Result—slower eating.

Slower eating seems to be one of the secrets of success.

The Association warns of developing a liking for soups deficient in essential nutrients.

Walter Winchell would have made a good dietitian. He wrote: "Fad diets are the bunk. All food is fattening. Everyone should eat a balanced diet. Those who wish to lose weight should eat less of it."

So the golden rule is motivate, correct eating habits, stick to good habits, eat more soup, and be sure to get the essential nutrients.

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*Data on file Parke-Davis Marketing Research Dept.
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ANUSOL-HC® SUPPOSITORIES

Hemorrhoidal Suppositories with Hydrocortisone Acetate
ANUSOL-HC® CREAM

Rectal Cream with Hydrocortisone Acetate

Caution: Federal law prohibits dispensing without prescription.

Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Dosage and Administration: Anusol-HC Suppositories—

Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories—boxes of 12

(N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

Anusol-HC Cream—one-ounce tube (N 0071-3090-13) with plastic applicator.

Store between 59°-86°F (15°-30°C).

1089G010

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EDITORIALS

Hoosier Motor Club Now Lending Auto Safety Seats for Newborns

The Hoosier Motor Club will lend safety seats for newborn children of AAA members in order to lessen the danger of an infant's first automobile ride from hospital to home.

James Parks, president of the club, during a press conference which was reported in the *Indianapolis News*, pointed out that 26 children under the age of

JERK

There's a Word for It

RICHARD J. NOVEROSKE, M.D.
 Evansville

Most physicians know that force is equal to the product of mass times acceleration and that acceleration is the rate of change of velocity, or distance divided by time to the second power.

But few physicians, and few engineers, know of jerk—the rate of change of acceleration, or distance divided by time to the third power. It is a helpful concept.

We can see jerk in moving machinery, in a cam for example. The new directions and intensities of forces that can be plotted in and around the moving, non-round surface of the cam are impressive.

Similarly in the human body when it is subjected to a sudden force that pulls, pushes, or jerks on it—whether it be a bullet, a falling object that hits the body, a whipping of the neck when a person is sitting in a parked car and hit from behind, "cracking the whip" as played by children, a jamming of a finger against something unyielding when striving to push, the impact of a head-on collision of cars, a fall of the body, etc.—the calculation or estimation of forces is often impressive. Why? Because of jerk. The rate of change of acceleration.

If the mass and the acceleration are constant, the force is constant. But when the direction of force changes abruptly—like a yo-yo on a string, there is theoretically a tiny instant of time when there is no movement in the direction that the human body or machine had been going in. Force is zero. If that numerator of zero is divided by any change in the denominator due to a sudden change in rate of acceleration, the result tends to approach infinity. The result is a momentary enormous force or change in force.

Consider jerk = mass/distance per second³.

4 were killed in traffic accidents in Indiana in 1980, and injuries totaled 2,291. Age group 5 to 9 experienced 45 deaths and 2,553 injuries.

It is estimated that the universal use of restraints for children will reduce accidents by 70%. The expense is not great. Two sizes of child restraints—the original one and one other to be purchased later—will carry the child to the age at which an adult seat/shoulder belt will suffice.

Making the safety seat easily available for the first ride home will encourage parents to acquire the device for use during all auto rides thereafter. Consistent childhood usage will indoctrinate children to the use of adult restraints later in life. And, while the adults are supervising the children's safety, the adults will be reminded of their own safety and of the highly protective functions of seat belts for everyone.

All hospitals with obstetrical departments should adopt the policy of providing infant safety seats for newborns or should insist that such life-saving equipment be available.

All state governments should require safety equipment in all cars carrying children age 4 years and under. Five states already have such a law and 20 other states are thinking about it.

The Hoosier Motor Club is to be congratulated for its forward-looking child safety program.

Breast Feeding and 'The Pill'

Breast feeding mothers can use oral contraceptives safely although the quantity and ingredients of their breast milk may change as a result.

Guidelines on birth control for lactating mothers were published recently by *Pediatrics* to clarify "confusing recommendations" in this regard.

No consistent long-term effects on children's growth or development have been described either with control pills containing estrogen and progestin, or with those with progestin alone. Although breast feeding in itself carries a contraceptive effect, the added recommendation is that this should not be depended upon. Five to 10 per cent of non-menstruating lactating mothers become pregnant.

Patent Term Restoration Act Passes

The patent term restoration bill was passed recently by the Senate without debate and by unanimous consent. One amendment was adopted to assure that any product approved, but for some reason on hold for marketing as of Jan. 1, 1981, would not be charged with elapsing time. Patent extension on the product would run from the time of actual approval. The bill had accumulated 25 co-sponsors by the time it was passed.

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MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis

Earlier in the year we reported that the Museum was making an effort to assemble a complete set of the *Transactions* of the Indiana State Medical Society. The illustration on this page shows the results to date. The *Transactions* were first published in 1849, and last published in 1907. The set shown here is complete (with numerous duplicates) except for 1850, '51, and '52; 1854, '58, and '59. In other words, six volumes are still missing.

Dr. Kemper, in 1916, reported that there were only three known

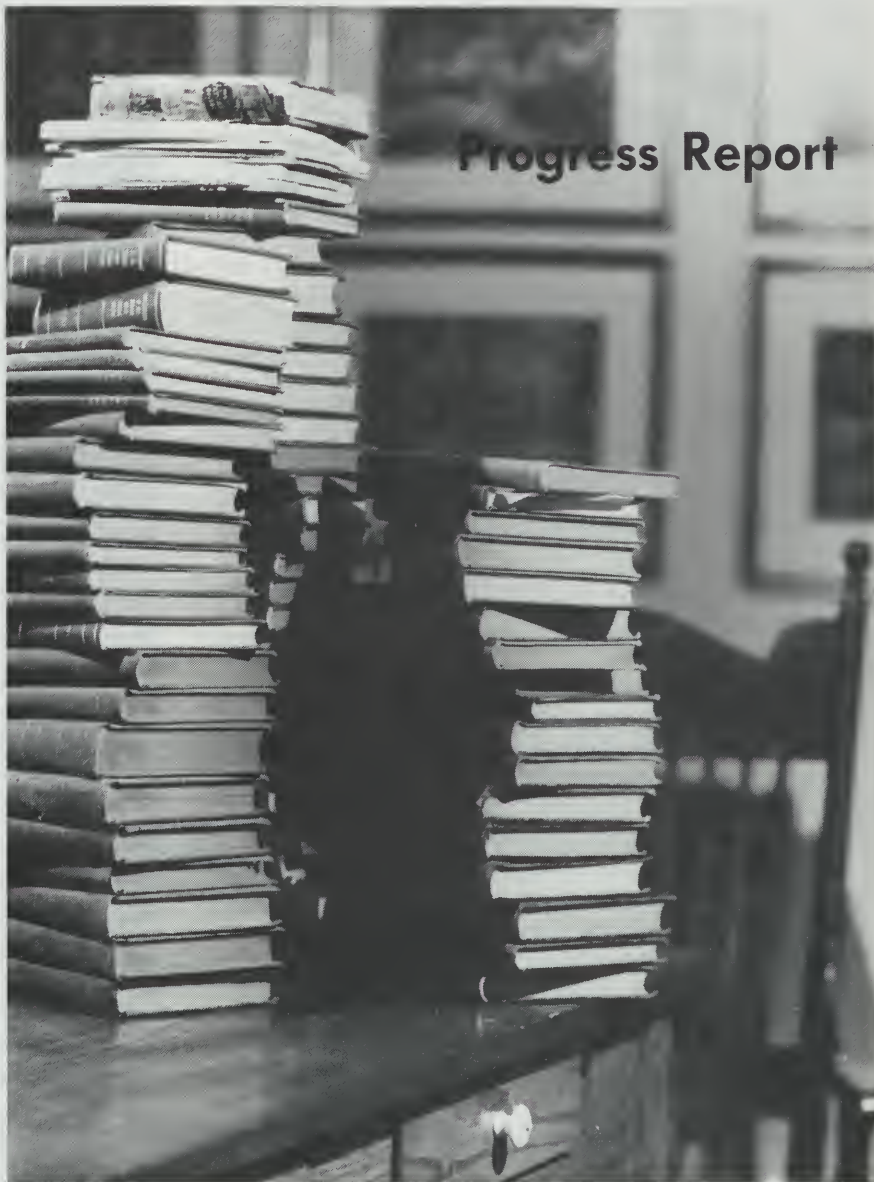
Meeting Scheduled

A meeting of the ISMA Medical History Committee will be conducted at 10 a.m., Saturday, Oct. 24, at the Sheraton West Hotel, Indianapolis, during the annual convention. The room number will be available at the Registration Desk. Interested physicians are invited to attend.

The committee members are: Charles A. Bonsett, M.D., Indianapolis, chairman; John U. Keating, M.D., Indianapolis; Kenneth G. Kohlstaedt, M.D., Indianapolis; Bernard Rosenak, M.D., Indianapolis; Dwight Schuster, M.D., Indianapolis; William M. Sholty, M.D., Lafayette; W. D. Snively, Jr., M.D., Evansville; and Mrs. Donald J. White, Indianapolis.

complete sets in the State of Indiana. He did not state where these sets were located, except for the Medical Section of the Indianapolis Public Library. Presumably Kemper had a complete set. If so, his set is probably no longer in existence, since our set contains one of the Kemper volumes.

The set at the Indianapolis Public Library is no longer in existence, or at least is no longer at that location. At the time of this writing, no record has been found to indicate what happened to these volumes.



Progress Report

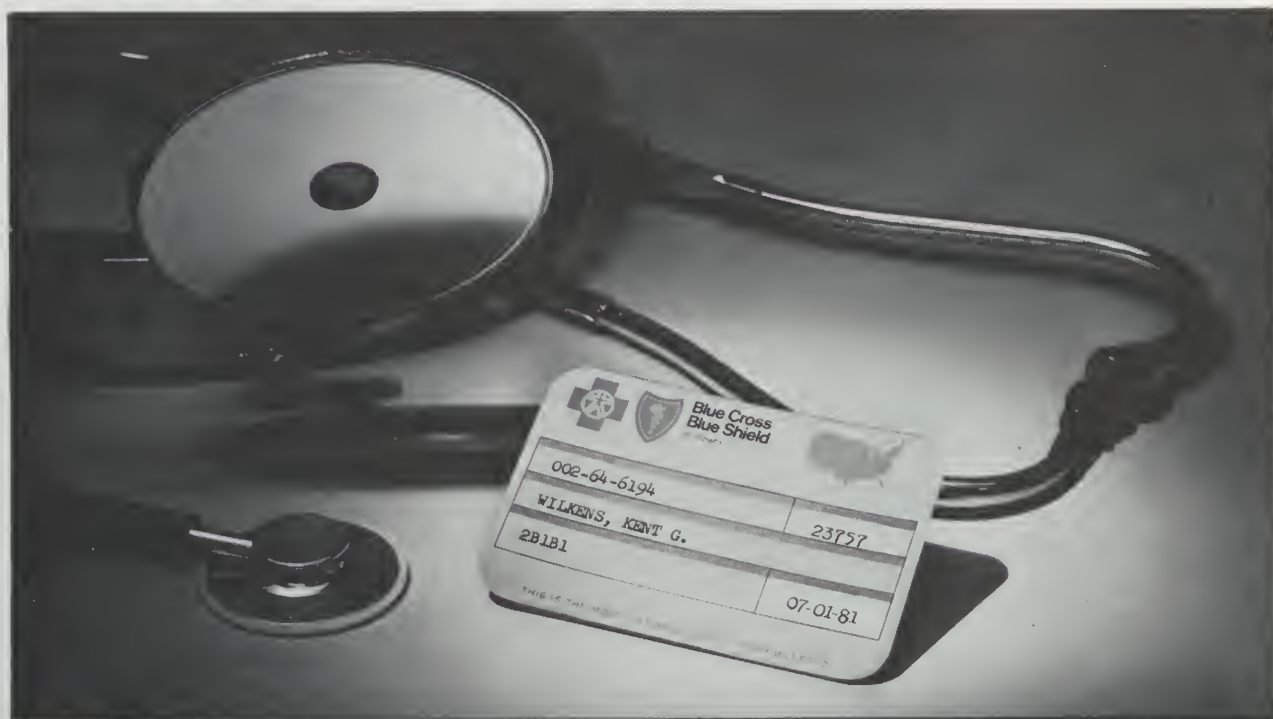
Our primary concern at this time is to locate the remaining few volumes. One method of doing this is by inquiring to dealers of rare medical books. Another method is by inquiring through this page for your assistance. Somewhere in Indiana these volumes must exist. The only problem is in knowing where.

The volumes for 1866, '67, '68, and '69 had been preserved, among others, by the ISMA, these four

particular volumes having been donated in 1969 by Mrs. Joseph E. Mann, the daughter of Dr. Earl Shenk of Kokomo.

The volumes illustrated here are now located in a recently restored turn-of-the-century glass front oak bookcase. The reader is requested to let us know if he knows the location of any of the missing volumes—1850, 1851, 1852, 1854, 1858, and 1859.

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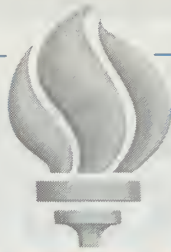
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First Aid for the Choking Child

A Statement from the Committee on Accident and Poison Prevention, American Academy of Pediatrics

THE ASPIRATION of a foreign body is a common hazard and the second greatest cause of home accidental death in children less than 5 years old. The National Safety Council reported more than 450 childhood deaths in 1978 caused by the accidental ingestion or inhalation of objects or foods resulting in the obstruction of respiratory passages. Pediatricians must emphasize the dangers of this emergency situation and teach first aid measures essential for proper evaluation and treatment. Much existing data on treating the choking child are anecdotal. Review of the available literature suggests that the following approach be adopted.

Any foreign body in the upper airway is an immediate threat to life and requires urgent removal. If the child can speak or breathe and is coughing, any maneuvers are dangerous and unnecessary. If the choking child is unable to breathe or make a sound, turn the child's head, place the child face down over your knees, and forcefully give four back blows. If this procedure fails to propel the object from the windpipe deliver four chest thrusts rapidly. Repeat these procedures as necessary if there is no response. Finger probing of the mouth should be attempted only if the foreign body is visualized. If the victim is an infant, place him over your forearm for the maneuvers. Older children can be placed on the rescuer's lap or on the floor.

Pediatricians should familiarize themselves with recommended methods of cardiopulmonary resuscitation (CPR) for the various age groups.² Remember, if the child is able to breathe and make sounds, and is coughing, these maneuvers are not needed.

Rapid transport to a medical facility is urgent if these first aid measures fail. If available, a 14-gauge needle inserted into the cricothyroid membrane may be lifesaving when used by a person proficient in the technique.

Committee on Accident and Poison Prevention:

H. James Holroyd, M.D., Chairman

Regine Aronow, M.D.

Joseph Greensher, M.D.

Leonard S. Krassner, M.D.

H. Biemann Othersen, Jr, M.D.

Barry H. Rumack, M.D.

J. Rafael Toledo, M.D.

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Liaison Representatives:

Richard H. Gross, M.D., Section on Orthopaedics
George D. Armstrong, Jr, Food and Drug Administration

Diane Imhulse, National Safety Council

André l'Archevêque, M.D., Canadian Paediatric Society

Consultant: Howard C. Mofenson, M.D.

REFERENCES

1. How people died in home accidents, 1978, in *Accident Facts*. Chicago, National Safety Council, 1979, pp 81-82.
2. Report of National Conference on CPR and Emergency Cardiac Care held Dallas, 1979: Standards and guidelines for cardiopulmonary resuscitation (CPR) and emergency cardiac care (ECC). *JAMA*, 244:453, 1980.

This statement has been approved by the Council on Child and Adolescent Health, American Academy of Pediatrics.

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Abortion Requirement Not Unconstitutional

Court Action

A requirement that all second trimester abortions be performed in a hospital is not unconstitutional, a federal trial court in Indiana has ruled.

An abortion clinic, a physician and several pregnant women filed suit on Nov. 13, 1974 challenging the Indiana abortion statute. A trial court granted a permanent injunction against enforcement of parts of the statute but held that the requirement of hospitalization for all second trimester abortions was constitutional. The final order was ultimately affirmed by the U.S. Supreme Court in 1977.

The case then lay dormant until Feb. 21, 1980, when the claimants moved to modify the final order and rule that the hospitalization requirement was unconstitutional. They claimed that only one hospital in Indiana allowed non-therapeutic second trimester abortions and that childbirth was more dangerous to a mother's health than an abortion performed by dilation and

evacuation in the first half of the second trimester.

Rejecting the argument, the court said that the U.S. Supreme Court's opinion in *Roe v. Wade* clearly permitted regulation of abortions in the second trimester to protect the mother's health. The court said it was reasonable for Indiana to require second trimester hospitalization to promote maternal health. The claimants presented statistical evidence to support their contention that the Indiana statute did not result in decreased maternal morbidity or mortality for specific groups of abortions.

The court said that the ultimate test was broader—whether the legislature acted reasonably in determining that the statute would promote maternal health. The statistics used to determine the reasonableness of a statute would have to be the statistics for all the abortions to which the statute applied, not just those for a specific group, the court said.—*Gary-Northwest Indiana Women's Services, Inc. v. Bowen*, 496 F.Supp. 894 (D.C., Ind., Sept. 12, 1980)

Courtesy of *The Citation*, April 1, 1981.

Informed Consent Doctrine Does Not Apply

Court Action

The doctrine of informed consent does not apply to therapeutic treatment, a Pennsylvania appellate court has ruled.

A patient was diagnosed as having rheumatoid arthritis. Her physician prescribed aspirin, Butazolidin and Indocin for the pain and swelling. Because those drugs caused gastrointestinal problems, the physician prescribed chloroquine in August 1958. The prescription was for one hundred 250 mg. tablets to be taken one tablet per day. The prescription was not refillable, but the patient got two pharmacies to continually refill the prescription. She took one tablet a day from 1959 to 1971 without the knowledge or consent of the physician. As a result of the prolonged use of the drug, retinopathy developed and the patient became partially blind. In a malpractice suit against the physician, a jury returned a ver-

dict in favor of the physician.

On appeal the sole question to be decided was whether the physician was obligated to obtain the patient's informed consent to the drug treatment. The court stated that such informed consent was required prior to a surgical operation, but that requirement had not been extended to therapeutic treatment. Quoting from the trial court's opinion, the appellate court said that the "doctrine has never been extended to the type of malpractice action brought herein and this Court will not do so."

The appellate court noted that the patient had visited the physician only once between 1959 and 1971 and did not give him the opportunity to use his expertise in discovering any side-effects and controlling them. The court said that the proximate cause of her condition was her independent prolonged use of the drug and the pharmacies that supplied them.—*Malloy v. Shanahan*, 421 A.2d 803 (Pa.Super.Ct., Aug. 22, 1980)

Courtesy of *The Citation*, April 1, 1981.

DESCRIPTION: Methyltestosterone is 17 β -hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunuchism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahiolu, M.D.; Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

Auxiliary Day at ISMA Annual Meeting

Fall has now made its annual appearance in Indiana and people are planning their week-end activities around their favorite football team's schedule. Indiana artists are also busy catching the reflections of the sun's rays on the beautiful fall foliage in hopes of creating another beautiful autumn painting. The third sign of fall for Indiana physicians and their spouses is the annual convention of the Indiana State Medical Association. This year we will convene for the 132nd annual meeting at the Sheraton West Hotel, Oct. 23-26. Our program appears in the boxed item at right.

Make plans now to support the ISMA and the ISMA Auxiliary by attending this fun-filled week-end in Indianapolis. *All* activities are by reservation only as we must have an accurate count in order to provide transportation to those events scheduled outside the hotel as well as payment for the IMPAC luncheon and the Brunch and tour of the Art Museum. We're looking forward to sharing the weekend of Oct. 23-26 with you at the Sheraton West Hotel!

Friday, October 23

7 p.m.—???

Hospitality Room for all guests in the ISMA Suite. Come join us for a get acquainted evening of light refreshments, bridge, backgammon, needlework, etc.

Saturday, October 24

Activity of Your Choice

Noon—2 p.m.

Support the Political Action Committee by attending the IMPAC Luncheon

OR

10 a.m.—4 p.m.

Shopping tour of historical Zionsville. Enjoy browsing the quaint brick streets with the many antique and specialty shops—then have a dutch-treat lunch at the famous Green Apple. Transportation provided.

OR

10 a.m.—4 p.m.

Shopping tour of Keystone-at-the-Crossing. Divide your time between the Bazaar and the Fashion Mall. 61 shops available for your shopping pleasure plus 13 restaurants to rest and enjoy your dutch-treat lunch. Transportation provided.

Sunday, October 25

ISMA AUXILIARY DAY

9 a.m.

Executive Board meeting (ISMA Suite)

10 a.m.

Open Board Meeting (Presentations by Dean Steven C. Beering and Mr. Donald Foy)

12:30 p.m.—4 p.m.

Enjoy an afternoon at the Indianapolis Museum of Art. A fantastic brunch (with favors and door prizes) followed by a relaxing autumn tour of the Museum, Lilly Home, and the beautiful grounds.

4:30 p.m.

CPR Training Course (Sheraton West)

6 p.m.

Fifty Year Club Reception

6:30 p.m.

President's Reception

7:30 p.m.—

President's Dinner and Dance. Join President Haley and Kay for a truly gourmet dinner and a delightful evening of listening and dancing music by the "Men of Note." The band includes a vocalist and a special portion of "Fifties" music for reminiscing. A truly memorable way to highlight the week-end!

11:30 p.m.



***You're looking at one of the best
high school wrestling teams in the country.
They're from the New York School For The Deaf.***

Last season they were 11-2, and won their league championship.

Team captain Mike Caminiti hopes to continue wrestling in college, and eventually work with his father, a building contractor.

When Rodell Harris isn't tossing around opponents, he's tossing salads. He plans to own his own restaurant.

Mark Howard will study business management and accounting in college, and Noe Santiago is considering a career in art.

Winning is important to these guys.

They give everything their best shot.

*We love the same country.
We care about the same things.
We dream the same dreams.
1981. The International Year
Of Disabled Persons.*

*President's Committee on
Employment of the Handicapped
Washington, D.C. 20210
The School of Visual Arts
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John R. Wilson
Accountant/Bookkeeper

JOHN WILSON, 38, is among the newest members of the ISMA staff, having joined in February as the replacement for Irene Reilly, now retired.

Licensed by the Indiana State Board of Public Accountancy, he was self-employed until accepting his ISMA position. Previously, he had worked 13 years with Hammond & Hammer Public Accountants, Greencastle.

At ISMA, John's responsibility is to maintain an accurate financial record of Association business, which includes the preparation of timely financial statements and daily transactions of receipts and disbursements. His involvement includes the payroll, investments and interest, taxes, the budget, the pension plan, insurance, and numerous other items.

John, a native of Terre Haute, is a member of the National Society of Public Accountants and of the Indiana Society of Public Accountants.

He and his wife Becky have five children, Andy, Kathy, Chuck, Peter and John. They range in age from 2½ to 11 years.

Meet Your ISMA Staff



Thomas A. Martens
Administrative Assistant

TOM MARTENS, 21, joined ISMA as a part-time employee in February 1980 and learned the ropes so well that he was offered full-time employment effective with his graduation from Clark Business College, Indianapolis. He was awarded an Associate's Degree in Accounting in June.

Tom, son of a Navy chief petty officer and therefore somewhat of a "world traveler," is now handling the administrative end—billings, collections and so forth—of the physician-member Blue Cross-Blue Shield health insurance program. (Claims are handled directly by the insurer.)

To maintain and update files for the insurance program, he has learned how to enter data in the Association's System 34 computer. In addition, he enters reporting data prepared by John Wilson, which is used to produce monthly and quarterly financial statements.

Born in Milwaukee, Tom's "seaport residences" have included Great Lakes, Ill., Pensacola, Fla., Gulf Port, Miss., and Gaeta, Italy. He is engaged to Miss Robin Daugherty of Indianapolis.

PAIN AND TENSION...

Double fault for weekend warriors

ACE THE ACHE
with

Equagesic[®] IV

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine,

may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and resumption of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

Wyeth Laboratories
Philadelphia, PA 19101





Down with pain

Step up to reliable relief

for mild to moderate pain

Wygesic[®]

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. **INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY.** Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity (jaundice, coagulation defects, hypoglycemia, encephalopathy, coma and death may follow. Renal failure due to tubular necrosis, and myocardialopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977). Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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To obtain Category 1 credit for this month's article, complete the quiz on Page 579.



Arthritis in Childhood

MURRAY H. PASSO, M.D.
Indianapolis

THE MOST COMMON chronic arthritic condition in children, defined as occurring before 16 years of age, is juvenile rheumatoid arthritis (JRA). It is estimated that at least half of the children with rheumatologic disease have JRA. The remainder of the affected children have a broad spectrum of problems which fall into orthopedic (noninflammatory), metabolic, neoplastic, infectious, and hematologic problems, as well as other inflammatory immune mediated connective tissue diseases. The emphasis of this brief review will be on JRA as it serves as a prototype for inflammatory

arthritis in childhood. Several comprehensive reviews of JRA and other childhood rheumatic diseases are now available for more detailed description.¹⁻⁴

Epidemiology of JRA

JRA is not an uncommon disease. The number of patients with JRA may be estimated by two methods. Studies comparing the relative frequency of JRA to adult rheumatoid arthritis (RA) yield a figure of about 5%.⁵ The maximum number of affected children calculated by this method suggests that there are about 200,000 patients with JRA in the United States.⁶

Several epidemiologic surveys, however, have suggested much lower prevalence figures. These studies estimate 0.1-1.1/1,000 children are affected by JRA. A recent source suggests the minimal prevalence of JRA to be 0.66/1,000 or

Correction

Dr. Oldrich Kolar, author of the CME article, "Multiple Sclerosis," which appeared in the July issue of THE JOURNAL, has submitted the following replacement legend for Figure 3:

"B-C: As compared to the precipitation arc of Fab fragments of immunoglobulin G (No. 3), the precipitation arc of kappa light chains displays elongation toward the anode (No. 4). Increased concentration in gamma glycoproteins (No. 5) is also demonstrated. The precipitate of lambda light chains (No. 6) is of lower density and obviously shorter as compared to the precipitation arc of the kappa light chains (No. 4) and of the Fab fragments of IgG (No. 3)."

The author is an assistant professor of pediatrics, Section of Pediatric Rheumatology, Indiana University School of Medicine, Indianapolis, Ind.

Supported in part by NIAMDD for the Multi-Purpose Arthritis Center **AM 20582**.

Table 1. Onset Subtypes of Juvenile Rheumatoid Arthritis

Systemic Onset
Polyarticular Onset
Seronegative (IgM Rheumatoid Factor—negative)
Seropositive (IgM Rheumatoid Factor—positive)
Pauciarticular
Early Onset—predominantly female, ANA positive
Late Onset—predominantly male, HLAB27

approximately 40,000 children nationwide.⁷ The annual incidence of new cases is estimated to be 0.09/1,000 or 5,000 new cases per year. The number of cases in Indiana based on 1.6 million children, 0-16 years of age, (Indiana University School of Business, Division of Research, 1975) can be extrapolated from these data. These conservative figures suggest that there are more than 1,000 existing cases of JRA; furthermore, we can expect an annual incidence of approximately 150 new cases per year. Compare the numbers to the incidence rates of highly publicized diseases such as: all of childhood cancer—.11/1,000,⁸ leukemia—0.03/1,000,⁸ and muscular dystrophy—0.14/1,000.⁹

The etiology of JRA remains unknown though it is undoubtedly multifactorial. Host immune response, environmental factors, infectious agents, and psychologic factors are perhaps involved. Importantly, trauma or benign infectious diseases often are cited by parents as antecedent events to the actual onset of synovitis.

Diagnostic Criteria

To avoid premature diagnosis of JRA one must recognize that JRA is a chronic arthritis. Arthritis is defined as joint swelling or limitation of motion with heat, pain or tenderness. Persistent arthritis for at least six weeks must be present

before the diagnosis can be established. Many joint afflictions including traumatic and infectious diseases may last several days to a few weeks but do not persist as a chronic arthritis. Note that positive objective physical findings are necessary to diagnose arthritis. Subjective complaints of pain or tenderness constitute only arthralgia.

Additionally, one must eliminate a legion of other conditions that may mimic JRA.¹⁰ JRA is therefore a diagnosis of exclusion. The best diagnostic aids are readily available—complete history including thorough review of systems and physical examination. Laboratory tests will offer limited assistance in some cases. Synovial fluid analysis and culture is particularly helpful in excluding infection, hemarthrosis, noninflammatory conditions, or the remote possibility of crystal-induced synovitis (gout).

JRA is probably not a single disease entity as well depicted by the three onset subtypes—acute systemic onset, polyarticular onset, and pauciarticular onset. These subtypes are determined by the clinical manifestations during the first six months of the disease.¹¹ The latter two subtypes are further subdivided as noted in *Table 1*.⁴ These subtypes of JRA have different age of onset, sex ratios, laboratory findings, complications and prognoses. Linking all the subtypes is the presence of a chronic synovitis in one or more joints.

Clinical Manifestations (Table 2)

Constitutional symptoms of varying degree are seen in most children with JRA. Morning stiffness and gelling after a period of inactivity are seen in nearly all children with active arthritis; moreover, these symptoms serve as good indicators of the activity of the synovitis. Likewise, malaise, fatigue, and apathy may be seen with active disease of any subtype. Interest-

Table 2. Systemic Manifestations of Juvenile Rheumatoid Arthritis*

Constitutional— morning stiffness gelling after inactivity fatigue irritability fever
Eye— iridocyclitis, chronic
Pulmonary— pleuritis (occasional effusions) rare interstitial pulmonary disease rare parenchymal infiltrates
Cardiac— pericarditis myocarditis—rare
Abdominal— hepatomegaly splenomegaly abdominal pain (mesenteric adenitis, sterile peritonitis)
Hematologic— lymphadenopathy—generalized anemia—may be severe leukocytosis (often greater than 20,000) thrombocytosis
Renal— occasional urine sediment changes but not clinical renal involvement
Central Nervous System— occasional encephalopathic syndrome meningismus
Endocrine— growth retardation
Orthopedic (exclusive of arthritic changes)— local growth disturbances
Cutaneous— rheumatoid rash subcutaneous nodules vasculitis—rare
*Frequency and severity vary according to onset subtype of JRA

ingly, the magnitude of pain is quite variable. Some children rarely, if ever, complain about pain per se. Studies have compared patients with JRA to adult RA and found that children complain of less pain.^{12,13} Perhaps children synthesize this sensation in a different way than do adults (for a variety of reasons). Nonetheless, absence of sig-

nificant pain should not preclude consideration of JRA!

Systemic Onset

This subtype of JRA includes about 20% of the JRA population. Systemic onset JRA also is called febrile onset JRA and formerly was called Still's disease in the United States. The latter term is somewhat confusing and should be discarded. The clinical course is marked by significant constitutional and visceral symptoms as well as arthritis, though the latter is often overshadowed in the early months. Boys are affected at least as often as girls. Age of onset before 5 years of age is common although it occurs at any age, including adulthood.

Fever is uniformly present in these children, with temperature spikes to 103 or greater once or twice a day (quotidian or double quotidian pattern). The temperature spike is characteristically in the late afternoon or evening with an additional spike in the early morning in occasional patients.¹⁴ The temperature curve is marked by wide diurnal variation with spontaneous return to baseline or below baseline between spikes. Some children have remittant (does not return to baseline) or periodic fever. Accompanying the fever may be profound malaise, chills, myalgias, arthralgias and rash. Younger children may appear morbidly debilitated during fever, whereas they appear quite comfortable between spikes.

Up to 90% of patients have an evanescent rash, which commonly makes its fleeting appearance during the fever. This rash is macular, pale erythematous ("salmon" colored), with individual lesions 2-10 mm that may coalesce.¹¹ It is noted predominantly on the chest, axillae, upper arms and may be seen on the distal extremities and face. About 5% of patients complain of pruritus, which should not preclude the consideration of JRA rash.¹⁵ The rash

may not be present during the examination, for instance, during an afebrile, morning visit. The rash may be elicited by the Koebner or isomorphic response, done by lightly stroking or rubbing the skin. The rash will appear several minutes later and remain up to several hours. This must be distinguished from the usual short-lived wheal of dermatographism.

Other prominent features commonly present include lymphadenopathy, splenomegaly and hepatomegaly. Marked generalized lymph node enlargement may be seen. The nodes are nontender, nonmatted, and freely moveable. Biopsy may be misleading as it demonstrates marked follicular lymphoid hyperplasia and may simulate lymphoma. Splenomegaly is common; however, massive enlargement or progressive enlargement of the spleen may provide a clue to intercurrent infection or the development of amyloidosis. Hepatomegaly usually is mild to moderate though it may be quite impressive. Serum transaminases are elevated in many patients even prior to the introduction of salicylate therapy. Liver biopsy has shown Kupffer cell hyperplasia and mild periportal mononuclear cell infiltration.¹⁶

Serosal membranes commonly are affected, including the pleura and pericardium. Pericarditis may be a significant clinical problem with typical precordial chest pain, dyspnea and, rarely, tamponade. The pericarditis responds to therapeutic levels of salicylates although severe symptoms demanding more aggressive therapy are readily treated with corticosteroids. Subclinical pericardial effusions have been demonstrated by echocardiography.¹⁷ Rarely, myocardial involvement is present with findings of congestive heart failure (not attributable to pericardial tamponade).¹⁸ Pleuritis usually is associated

with pericardial inflammation. Exudative pleural effusions and, rarely, pulmonary parenchymal infiltrates have been noted.¹⁹ Lastly, sterile peritonitis has been suggested by the presence of severe abdominal pain in some patients. Abdominal pain may be present in up to 40% of patients.²⁰ Usually, the etiology is not discernable by examination. Mesenteric adenitis is another possible cause of the abdominal pain in some patients.

The hematologic profile may be quite outstanding. Hemoglobin levels usually reflect low grade anemia in the range of 9-11 gm%. In patients with pernicious disease activity, the range may dip down to the 6-7 gm% level. One must be careful to assess for gastrointestinal blood loss in salicylate treated patients. A leukocytosis is usual, with white cell counts commonly in excess of 20,000, predominantly polymorphonuclear cells. Leukemoid reactions occasionally are seen. Thrombocytosis reflecting a chronic inflammatory state commonly shows 500,000 platelets or more.

The erythrocyte sedimentation rate usually is elevated, although the test is not of diagnostic value per se. Importantly, tests for rheumatoid factor (RF) and ANA are not significantly positive in this group of JRA patients.

The systemic symptoms usually are limited in duration to several months. The arthritis commonly lags behind the systemic manifestations by several months.²¹ It tends to be polyarticular, chronic, and often quite aggressive and difficult to manage. In many cases the systemic manifestations become of less importance, and the arthritis subsequently presents the majority of treatment problems.

Polyarticular Onset

Polyarticular onset is the most common subtype of JRA, constituting 35-50% of patients in most

series. This subtype is defined as arthritis in five or more joints. The arthritis is the outstanding feature of this group. Systemic manifestations are present in many of these patients; however, the severity is less than that seen in systemic onset JRA. The arthritis shows symmetrical involvement of large and small joints. Most commonly affected are knees, ankles, wrists, metacarpophalangeal, and proximal interphalangeal joints. Any synovial lined joints may be affected, including the TMJs and the cricoarytenoid. Axial involvement is confined to the cervical spine.

This subtype has been provisionally further subdivided into two subgroups that are clinically and serologically separate—seropositive (RF positive) and seronegative (RF negative).²²

The seronegative subgroup commonly has onset before 5 years of age and a female preponderance. The ANA test may be positive but the rheumatoid factor test remains negative in most patients. The arthritis usually is of moderate severity, but cartilage destruction with subsequent severe deformity is uncommon. This is contrasted to approximately 10% of JRA patients who fall into the subgroup of seropositive polyarticular JRA. Again, largely females, these children have disease onset usually during school age or adolescence. The disease probably represents the childhood counterpart to adult seropositive RA. Subcutaneous nodules, erosive arthritis, and vasculitis are seen in this group. The presence of high titer rheumatoid factor in an adolescent with polyarthritis portends a poorer prognosis in many cases.

Pauciarticular Onset

Roughly 40% of the children with JRA have pauciarticular onset, with arthritis confined to a few joints defined as four or less.¹¹ The ma-

jority of patients are not ill-appearing although occasionally mild systemic manifestations may be present. The arthritis commonly is asymmetrical and usually involves large joints. It now appears that within the pauciarticular subtype there are two quite distinct subgroups. These subgroups have been referred to as early and late childhood onset.^{4,22}

One subgroup includes predominantly boys who are school age or adolescent at disease onset. Approximately 60% are found to have HLA-B27 positivity, and a positive family history for ankylosing spondylitis or related diseases is common. Furthermore, some of these patients will have sacroiliitis and progress to have spinal involvement as they enter adulthood. In actuality, these patients have ankylosing spondylitis or one of the other spondyloarthropathies such as Reiter's syndrome. These patients are diagnosed as pauciarticular JRA because the differentiating features are lacking for several years, which precludes early classification. Signs or symptoms of enthesopathy (inflammation of tendon or ligament insertion areas) such as Achilles tendonitis or heel pain with plantar fasciitis, may be a clue-in to one of these "rheumatoid-variants." Importantly, one can anticipate that some of these patients will develop spinal disease and will require additional management measures.

The second subgroup includes predominantly girls, with early childhood onset commonly before 5 years of age. Up to 60% of these patients have ANA positivity. The arthritis tends to be relatively mild and does not affect the sacroiliac joints or lumbodorsal spine. The crucial problem in these children is the possible development of chronic iridocyclitis. Up to 50% of this subgroup may have eye involvement.⁴ It is estimated that 75-95% of iridocyclitis occurs in the pau-

ciarticular subgroup.²³

This complication can be missed and subsequently cause needless morbidity. The eye disease is largely asymptomatic, with no external eye findings which herald the inflammatory changes. Additionally, the eye inflammation and the arthritis are independent of each other with respect to clinical activity. Routine treatment of arthritis with salicylates affects no treatment for the eye inflammation. Additional separate management with mydriatics and corticosteroids is necessary. Up to 50% of the cases may have permanent visual impairment, including cataracts, glaucoma and band keratopathy.

In our clinic the ophthalmologists examine the eyes by slit lamp examination routinely every three-four months (until 16 years of age) regardless of the activity of the arthritis. To reiterate, the young patient, usually female, with limited joint disease and ANA positivity is at the highest risk for the development of eye inflammation. Occasional polyarticular and, rarely, systemic onset patients also may have iridocyclitis. These children require slit lamp examinations but at less frequent intervals. Lastly, the late childhood pauciarticular (HLA-B27, boys) subgroup is more prone to acute iritis as seen in ankylosing spondylitis. In contrast, acute iritis is quite clinically evident and the patient seeks medical care in pursuit of symptomatic relief.

Complications and Prognosis

The complications of juvenile rheumatoid arthritis may be looked upon from two different viewpoints. Some complications are common to all subgroups, whereas some complications characteristically are seen more in one subgroup versus another. As noted above, iridocyclitis is common to the early onset pauciarticular group; sacroiliitis and spinal involvement are seen in the

late onset pauciarticular group, and myocarditis and pericarditis are seen largely in the systemic onset group. Severe deforming joint disease is common to the seropositive polyarticular JRAs.

Patients with severe chronic inflammation are at highest risk for development of amyloidosis. Luckily, amyloidosis is rare in the United States; however, in England and Europe a larger percentage of patients eventually will acquire this complication. This is commonly a fatal complication from renal insufficiency. Treatment utilizing a cytotoxic agent has been encouraging.²⁴

Growth disturbances, generalized as well as local, are a complication seen in all of the subgroups. Polyarticular JRAs, especially those with onset early in childhood, and systemic onset patients are likely to have generalized growth retardation. The seropositive polyarticular patients have a later onset disease; therefore, growth retardation is not as remarkable in that subgroup. Patients may have early epiphyseal closure secondary to increased blood flow from inflammation. This may cause local growth disturbances such as limb length discrepancy.

The course of juvenile rheumatoid arthritis is one of marked variability. The disease usually is characterized by remissions and relapses; however, the outlook remains quite good for the majority of patients. One can estimate that 70-90% of patients will have a good outcome although longer follow-up and more precise criteria will be necessary to draw conclusions from future studies.²⁵ The fact that some of these patients will have residual deformity and active arthritis should not preclude vocational or avocational choices in most patients. In one series approximately 13% of the patients, however, had severe, progressive deforming ar-

Table 3. Differential Diagnosis of Arthritis in Childhood*

Infectious—Bone/Joint
Bacterial
Fungal
Viral—HBsAg, Rubella, adenovirus, etc.
Post-infectious
Acute Rheumatic Fever
Post Salmonella, Shigella, Yersinia
Connective Tissue Diseases
Systemic Lupus Erythematosus
Dermatomyositis/Polymyositis
Scleroderma
Sjogren's Syndrome
Mixed Connective Tissue Disease
Vasculitis Syndromes
Kawasaki's Disease
Polyarteritis Nodosa
Henoch-Schonlein Purpura
Wegener's Granulomatosis
Takayasu's Arteritis
Neoplastic Diseases
Leukemia
Lymphoma
Neuroblastoma
Local synovial or bone tumors
Spondyloarthropathies
Ankylosing Spondylitis
Reiter's Syndrome
Psoriatic Arthritis
Inflammatory Bowel Disease
Immunodeficiency States
Hypogammaglobulinemia
Complement Deficiency States
Noninflammatory Osteoarticular Diseases
Chondromalacia Patellae
Osteochondritis Dissecans
Internal joint derangements
—abbreviated list
Metabolic and Heritable
Hypothyroidism
Gout
Mucopolysaccharidoses
Hypromobility Syndrome
Hematologic Diseases
Hemophilia
Hemoglobinopathies
Psychogenic Rheumatism
*Incomplete

thritis, which rendered them disabled and dependent.²⁵ If one looks at the subtypes for outcome, it is readily recognized that the seropositive polyarticular and systemic onset JRAs who develop progressive polyarthritis have the poorest prognosis. Early in the disease, one is unable to predict the behavior of the arthritis with the exception of the high titer rheumatoid factor positive females. Though we can offer no cure at the present time, a multidisciplinary treatment approach offers the patient a good outlook overall.

Differential Diagnosis (Table 3)

The differential diagnosis of arthritis in childhood is beyond the scope of this article. Several diseases that are important to distinguish are briefly discussed below.

Acute rheumatic fever (ARF) is a poststreptococcal multisystem disease characterized by migratory polyarthritis, fever, rash, pancarditis, chorea, and/or subcutaneous nodules. All features are not seen in every patient. As a matter of fact, ARF in 1981 is more likely to have only fever and arthritis. The fever is remittant or sustained, which differentiates it from the spiking quotidian fever of systemic onset JRA. The rash is erythema marginatum, which does not occur on the face. The arthritis is very painful, disproportionate to the objective findings in most cases. The arthritis usually is migratory, characteristically involving one joint for no longer than 72 hours. Also, the arthritis and fever commonly resolve within six weeks. Lastly, ARF is said to be readily treated with salicylates. Rapid improvement or cessation of symptoms within 48-72 hours separates the response of ARF from JRA, which is not nearly so quick to improve.

Systemic lupus erythematosus (SLE) shares several similarities with either systemic or polyarticular

onset JRA. Differentiating features of SLE include alopecia, Raynaud's phenomenon, photosensitivity, mucosal ulcerations, myositis, glomerulonephritis, central and peripheral nervous system involvement, to mention a few. Laboratory findings may be helpful. Many SLE patients have hypocomplementemia, antibodies to native DNA, leukopenia, thrombocytopenia, positive direct Coombs, and false-positive VDRL. A good history, physical examination and laboratory evaluation will separate most cases into the proper diagnosis.

Of pertinent note is that all of the connective tissue diseases—SLE, dermatomyositis, scleroderma, vasculitic syndromes—may be heralded by an inflammatory arthritis. The differentiating clinical features may lag behind, which makes the diagnosis unclear early on. This also may be true of other inflammatory arthropathies, such as ankylosing spondylitis, Reiter's syndrome, psoriatic, and inflammatory bowel disease.

Infectious diseases are important to exclude. Both septic arthritis and osteomyelitis may mimic JRA. Multifocal infection is especially difficult to distinguish. Joint effusions occur in both septic arthritis as well as in osteomyelitis. In osteomyelitis the metaphyseal tenderness must be sought on examination. Blood and synovial fluid culture are helpful to distinguish bacterial infections from JRA. Several viral diseases have been described in association with arthritis, most commonly rubella and hepatitis B. These diseases are self-limited and generally resolve before chronicity has been established.

Neoplastic disease, especially leukemia, lymphoma, and neuroblastoma, may be confused with JRA. These diseases cause severe arthralgia because of interosseous neoplastic cell infiltration. The pain

usually is disproportionate to the physical findings. Radiographic findings may be present which show metaphyseal rarefaction, periosteal reaction, on lytic lesions. Also quite helpful are the presence of severe anemia, leukopenia or thrombocytopenia.

Numerous other considerations are included under hematologic, metabolic, hereditary disorders of connective tissue, and noninflammatory osteoarticular disease.

These are listed in part in *Table 3*.

Summary

JRA is a multifaceted disease including three major onset subtypes. The prognosis is good for the majority of patients. Comprehensive, multidisciplinary treatment including medical, physical and occupational therapies, social services, and nursing is essential. Discussion of management will be forthcoming in a future article.

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Maternal Mortality in Indiana: A Report of Maternal Deaths in 1979

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THE FOLLOWING is the annual report of the Indiana Maternal Mortality Study Committee. Only four maternal deaths occurred in Indiana during 1979. In that year Indiana recorded 87,098 live births. The deaths give the state an official maternal mortality rate of 4.5 deaths per 100,000 births for 1979.

Three of the victims were white and one was non-white. All of the deaths were related to pregnancy and were therefore regarded as maternal deaths. Three of the deaths were considered by the committee to be preventable and one was considered nonpreventable.

Dr. Ragan is chairman of the 13-member Indiana Maternal Mortality Study Committee. An earlier report by the committee, "Maternal Mortality in Indiana: A Report of Maternal Deaths in 1978," appeared on pp 677-678 of the October 1980 issue of THE JOURNAL.

Members of the Indiana Maternal Mortality Study Committee are Gordon C. Cook, M.D., Robert H. Oswald, M.D., Charles Gillespie, M.D., Jesse D. Hubbard, M.D., Charles Kelley, M.D., Elfred Lampe, M.D., Daniel Newman, M.D., George Porter, M.D., William D. Ragan, M.D., Rick Cross, M.D., Sam Ravindran, M.D., Ted Danielson, M.D., and Kathy Visovatti Weaver, R.N.

Case Studies

Case #1: The patient was 20 years old at eleven weeks gestation. A planned abortion was performed by a non-gynecologist. The abortion was not completed and she was referred for hospital care. She developed clostridia sepsis with hemolysis and renal shut down.

Case #2: The patient was 22 years old at 28 weeks gestation. She had eclampsia and was delivered by cesarean section. She developed postpartum endometritis and overwhelming sepsis. Her situation was complicated by systemic lupus erythematosus.

Case #3: The patient was 21 years old. She had a normal pregnancy and delivery. At the time of postpartum tubal ligation, five days after delivery, a mass was found in the right lower quadrant of the pelvis. While trying to free up this mass, the patient suddenly ceased to breathe. Autopsy showed a right ovarian vein thrombosis and massive pulmonary embolus. Readers are referred to a recent article on postpartum ovarian vein syndrome.*

Case #4: The patient was a 40-year-old multiparous patient who suddenly died at 38 weeks gestation. Autopsy was not able to explain the patient's death. The mortality was considered obstetric.

Autopsies were performed in all four cases.

It is still apparent that we may be missing a few maternal mortalities in our statistics. If a death certificate does not indicate that a pregnancy was involved, the case will be missed. A plea is made for always mentioning when a pregnancy is involved with a female death. Maternal death should be reported to the committee through Dr. William D. Ragan, Department of Obstetrics and Gynecology, Indiana University Medical Center, 1100 West Michigan St., Indianapolis, Indiana 46223.

*Munsick RA: A review of the syndrome of puerperal ovarian vein thrombophlebitis. *Obstet Gynecol Surv*, 36:2, 1981.

The Benefit of Ultrasound Imaging in Evaluation of the Breast: Review of a 3-Year Clinical Program

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Indianapolis

DURING THE LAST three years, approximately 1,000 patients have been examined at the Regenstrief Health Center with ultrasound techniques both as the primary examination and combined with low dose film mammography. The patients are predominantly symptomatic. We have found that ultrasound visualization surpasses mammography in accuracy of diagnosis for both cystic and solid lesions in patients with the "dense" breast.^{1,2} For the older, predominantly fatty breast, the primary advantage of ultrasound is associated with gaining further information on tumor characteristics, which can be used in conjunction with that provided by x-ray to yield increased diagnostic accuracy.

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Supported by the Showalter Residuary Trust, the Grant County Cancer Society, and the Indianapolis Center for Advanced Research, Inc.

Acknowledgments: Lana Hensley and Gayle Fair for the clinical ultrasound examination of breast patients, and J. Stephen Noe for assisting in both the clinical and research aspects of the program.

Methods and Instrumentation

The ultrasound instrument was developed by the Indianapolis Center for Advanced Research, Inc. (located at the Indiana University Medical Center) by modifying a commercially available instrument to provide features found to be essential for accurate diagnosis of breast pathologies.^{1,3} The unit is a simple B-mode linear, automated scanning unit, which provides multiple static images of the breast.

The patient is supine and a water bag technique is used to transmit the sound wave to the breast. Min-

eral oil is used on the skin to prevent the loss of sound transmission due to formation of air pockets (particularly in the region of the nipple) between the skin and the water bag surface. The transparent water bag allows viewing of the breast during the scan, is counter-weighted, and can be manually lowered to the surface of the breast, angulated to conform to the breast contour and rotated so that the transducer can scan transversely, longitudinally or diagonally.

For each single ultrasound scan, the transducer travels a linear path of 12 cm. Multiple static images are

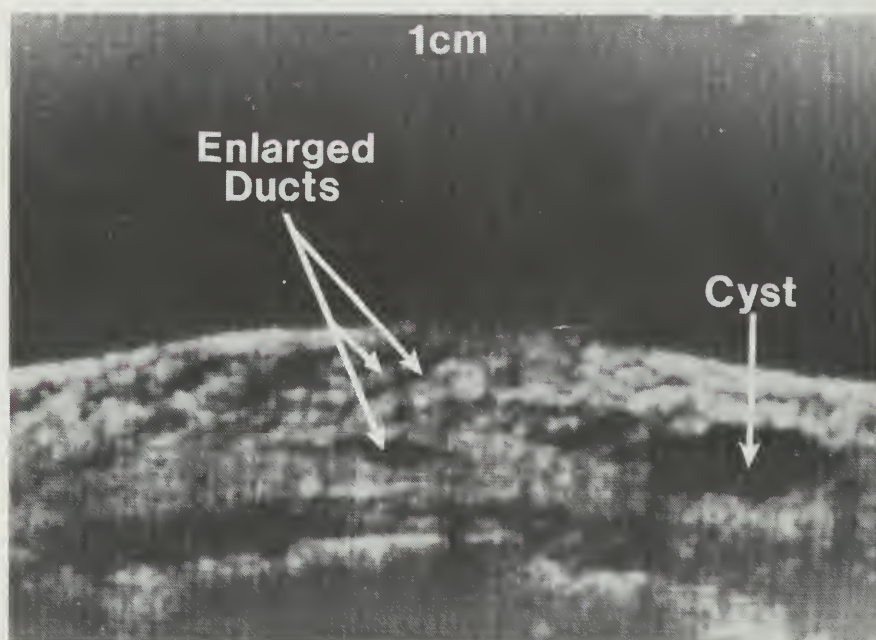


Fig. 1: Ultrasound image of breast of a 35-year-old female with fibrocystic disease, obtained from a transverse scan across the nipple and areola. Enlarged ducts and an overt cyst are clearly evident.

performed at two chosen space intervals; either 1 mm or 5 mm tissue paths may be selected. In routine scanning of the whole breast, 5 mm step intervals are used, but if any mass or other abnormality is identified, this area is re-scanned at 1 mm step intervals.

The single focus transducers used in this instrument have been specifically designed and fabricated in the research laboratory to yield a range and lateral resolution that is sufficient for diagnosis of small breast masses (i.e., less than 5 mm). In general, a 3.7 MHz transducer is used, but other transducers of lower and higher frequencies can be interchanged as deemed necessary.

The following types of breast pathologies were most commonly encountered in our program:

Fibrocystic Disease. These patients complain of bilateral nodular breasts, with masses of varying sizes occurring at different stages of the menstrual cycle. Some of these patients have had multiple surgical biopsies because low dose film mammography does not adequately delineate these lesions. With our instrumentation, both large and small cystic lesions (i.e., as small as 2 mm in size) have been demonstrated (*Fig. 1*). Further, because scans are easily reproduced and no ionizing radiation is involved, patients with cystic masses have been followed at closer time intervals than normally would be done with film mammography. The possible effectiveness of a low caffeine diet on fibrocystic disease is being investigated in a few subjects.⁴

The Pregnant and Post-Partum State. The pregnant patient with a newly palpable or enlarging mass presents a dilemma to the physician. Malignancies in these patients accelerate in growth in a short time, and, therefore, it is important to differentiate the benign from the malignant mass as early as possible. However, the increase in glandular

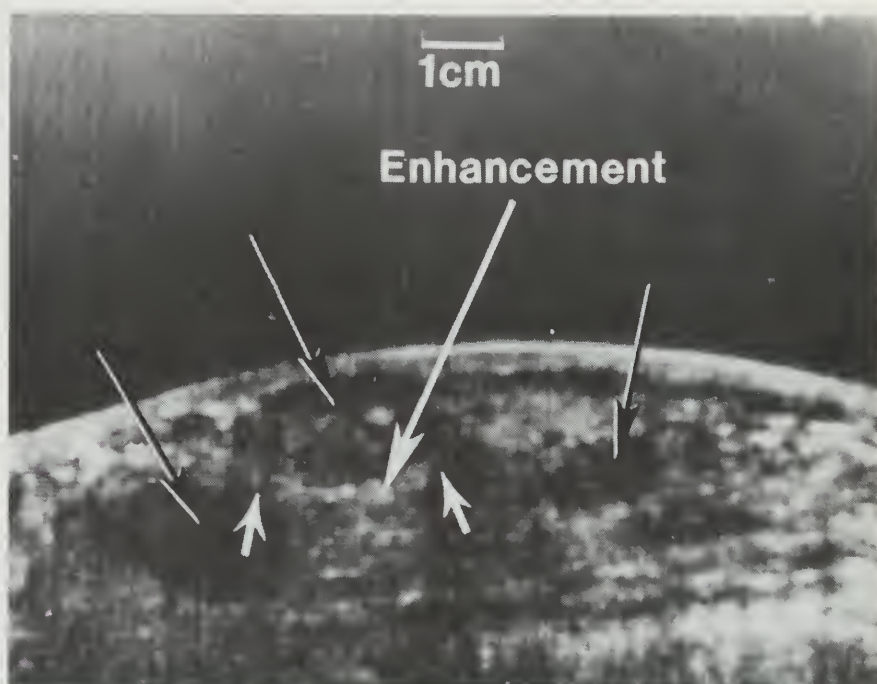


Fig. 2: Ultrasound image obtained from a transverse scan of breast of a young, pregnant patient with multiple fibroadenomas.

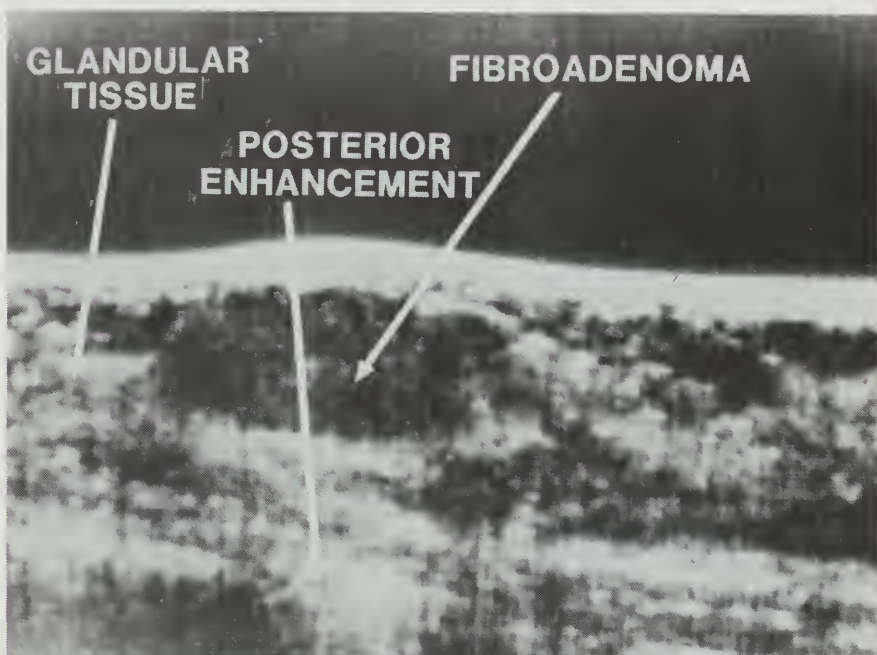


Fig. 3: Ultrasound image of fibroadenoma in breast of a young patient. Note the homogeneous internal echoes of the mass.

tissue that occurs in the breast of the pregnant woman decreases the diagnostic accuracy of x-ray mammography. In our studies, such masses are well defined with ultrasound visualization, and a differential diagnosis is easily obtained with use of this technique (Fig. 2).

Benign Solid Masses. In our

population, the most common benign solid mass was the fibroadenoma. These occurred mainly in the 15-year to 35-year age group. With ultrasound, most fibroadenomas have certain characteristics, namely, the walls of the masses are smooth, the internal echoes are relatively homogeneous, and either no atten-

uation of the beam can be observed visually or it is extremely minor (Fig. 3).

Initially, x-ray mammography was performed together with ultrasound for patients of all ages. However, it was found that the x-ray technique was non-diagnostic in the majority of young patients because of the density of the breast; therefore, our current procedure is to use ultrasound as the initial examination for all young patients (i.e., less than age 30) with a palpable mass. X-ray mammography is then used only if the ultrasound examination indicates the possible presence of a malignancy.

Malignant Masses. The age range of patients with pathologically proven carcinoma was between 36 and 70 years. The masses ranged in size from 0.8 to 7.0 cm. The most common type of malignancy was the infiltrating ductal carcinoma. The ultrasound image characteristics of malignant masses most commonly seen were: 1) irregular walls; 2) non-homogeneous internal echoes; and 3) attenuation of the ultrasound beam as indicated by acoustic shadowing (Fig. 4). The extent of these characteristics may vary in different regions of the tumor and, therefore, we have found that it is extremely important to study all mass lesions at 1 mm step intervals in order to evaluate the tumor mass in its entirety (Fig. 5).

Medullary carcinomas may exhibit characteristics that are sometimes difficult to differentiate from benign fibroadenomas. The two cases in our study were, however, correctly diagnosed, as specific attention was paid to slight irregularity of the wall of the mass and the non-homogeneous echo pattern.

Results

The results discussed below reflect the patients who were diagnosed as having either benign or malignant pathology for the period

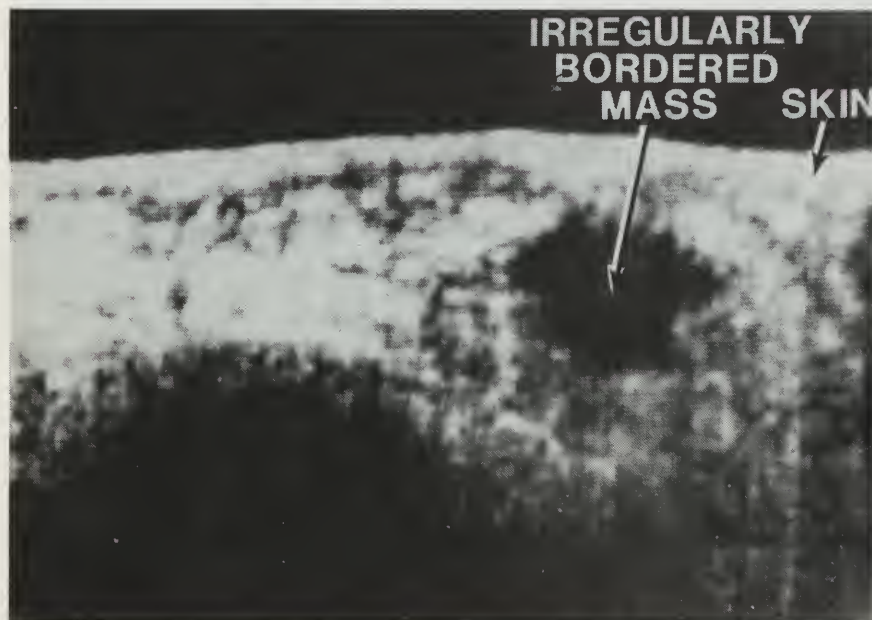
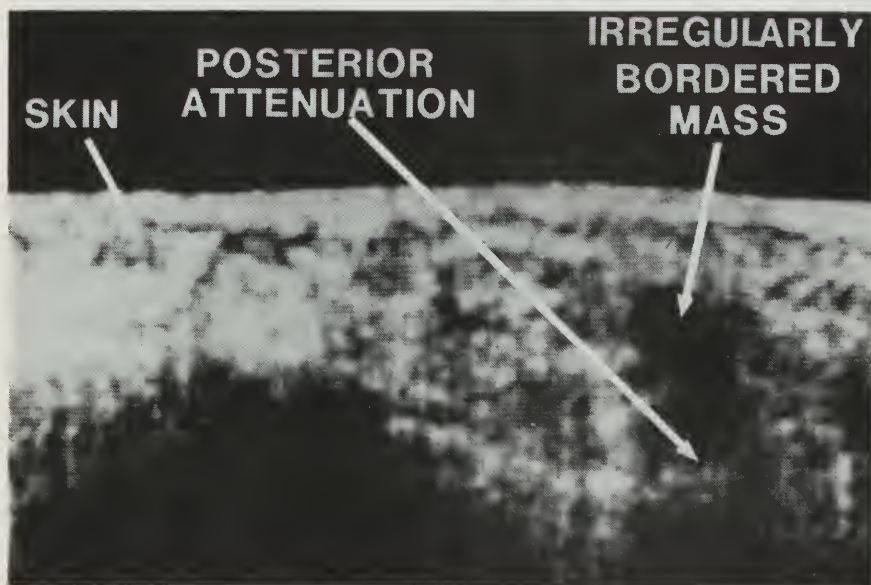


Fig. 4: Ultrasound image of infiltrating duct carcinoma in breast of a 57-year-old patient. Above photo demonstrates marked irregularity of the wall of the mass. Photo below shows the acoustic shadowing posterior to the mass.



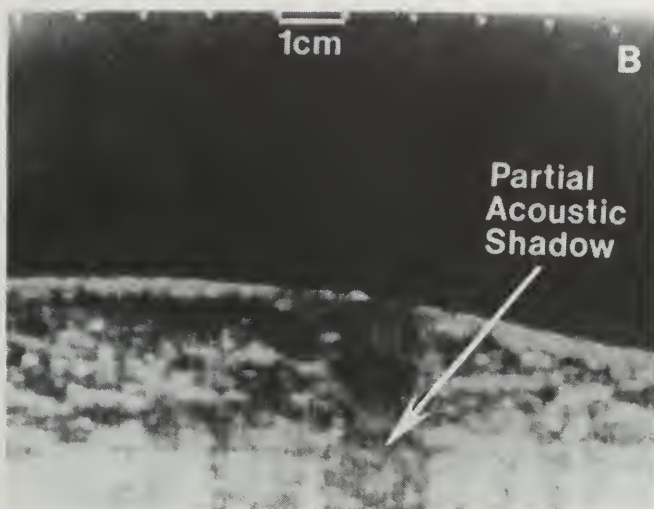
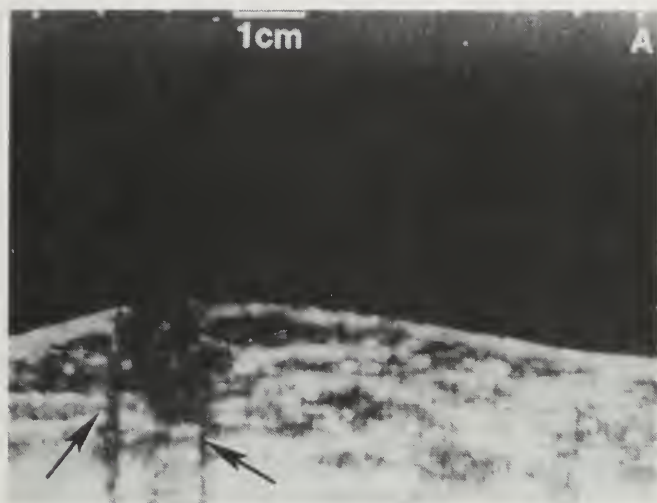
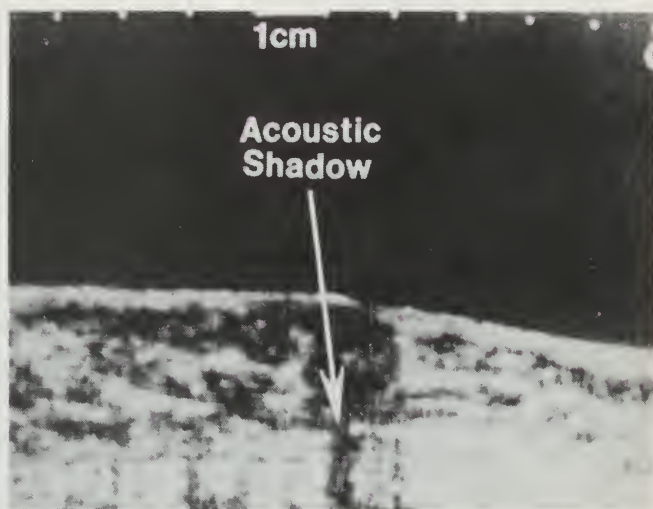


Fig. 5 A,B,C: Ultrasound images obtained by scanning a palpable mass in the breast of a 60-year-old patient. Initial transverse scans at 5mm intervals indicate tumor imaging characteristics consistent with a fibroadenoma (A). Longitudinal scans at 1 mm intervals (B) and (C) exhibit characteristics of malignancy, namely, jagged walls and central acoustic shadowing.



June 1978 to September 1980. This period reflects the time during which we utilized only transducers developed by the Indianapolis Center for Advanced Research, Inc., and 1 mm interval scanning was incorporated into the instrumentation. There was approximately a six-month interval, prior to June 1978, during which instrumentation modifications and examination techniques were being developed and the technician and radiologist were being trained. More than 200 patients were examined during this initial training phase of the study, and 738 patients were examined in the period discussed in this paper.

Of 34 pathologically confirmed carcinomas, 32 were diagnosed correctly by ultrasound and 32 by mammography. The two incorrect diagnoses by x-ray mammography and by ultrasound were for different patients. The two cases that were missed with x-ray mammography occurred in relatively young patients, i.e., 38 and 40 years old. In both patients there was a large amount of fibroglandular tissue within the breast and, therefore, there was lack of contrast between the clinically palpable mass and the surrounding tissue. These masses were correctly diagnosed as malignant by ultrasound.

In one of the cases incorrectly diagnosed by ultrasound, which occurred very early in this study, there was an interpreter's error in evaluating the mass and, in retrospect, this lesion should have been diagnosed as a malignant neoplasm. The other missed diagnosis was for a mass located at the most lateral aspect of the breast, and this area, in error, was not scanned. The carcinomas diagnosed were predominantly of the infiltrating ductal type; however, a few lobular, two medullary, one colloid, and a clear cell papillary carcinoma also were found.

There were seven false-positive

diagnoses for malignancy made by ultrasound and four false-positives by x-ray techniques. These pathologies consisted of varying forms of dense tissue deposits, fat necrosis, dense fibrous tissue and diffuse papillomatosis. This result indicates a low number of false-positives for both x-ray mammography and ultrasound. Since patients who received a negative diagnosis were not biopsied, it is not possible to give our results in the classical terms of "sensitivity" and "specificity." It may be useful, however, to mention here results obtained by Manoliu and Ooms in their study of the accuracy of mammography in a symptomatic patient population of 609 women (655 breasts) with a total of 224 histologically confirmed malignant tumors.⁵ All patients in that series received a biopsy and, on the basis of those data, it was determined that there were 85 false-positive cases, yielding a *specificity* of 80.3%, and there were 13 false-negative cases, yielding a *sensitivity* of 86.6%.

In patients with benign pathologies, fewer biopsies have been performed, possibly because of the young age of the majority of these patients. Eighty-eight patients have been diagnosed by ultrasound techniques as having benign solid masses, the appearance of which was compatible with a fibroadenoma. Of these, 18 were pathologically confirmed. Most of these 18 patients were over 40 years of age. The patients who were not biopsied are being followed closely with both clinical and ultrasound examinations.

Approximately 159 patients were diagnosed as having fibrocystic disease in the same time period. Twenty-eight of these patients have had confirmatory biopsies, and the rest are being followed both clinically and with ultrasound.

Four cases of cystosarcoma phylloides were encountered in this

same period, and all of these were correctly diagnosed by ultrasound. One other case was diagnosed as "malignant" cystosarcoma phylloides, but pathological study proved it to be a rare neoplasm, i.e., clear cell papillary carcinoma.

Discussion

Although multiple investigators in various parts of the world have used ultrasound for visualization of the breast with good results and diagnostic criteria have been described which allow the distinction between benign and malignant masses, ultrasound visualization has not been widely used on a routine, clinical basis for breast examination.^{3,6-13} In this study, specifically designed for the symptomatic patient, ultrasound visualization has shown clear advantages for breast examination. For the older patient, some of the advantages are associated with gaining more information on malignant tumor characteristics, which can be used in conjunction with that provided by x-ray mammography to yield increased diagnostic accuracy.

It is noteworthy that, in this study, when both the x-ray mammography and the ultrasound data were taken into account, no malignant masses were misdiagnosed. The two cases that were misdiagnosed by x-ray mammography were typical of the type most often misdiagnosed with this technique, namely, young dense breasts showing poor contrast between the malignant mass and the surrounding tissue. These masses were correctly diagnosed by ultrasound visualization. It also is significant that the two masses not correctly diagnosed by ultrasound were in error for reasons not associated with the validity of the technique, that is, in one case (which occurred very early in the series) there was an interpreter's error of the image data, and in the

other case, the region of the palpable mass was not scanned by the technician.

Insofar as false-positive results are concerned, dense masses such as fat necrosis or dense fibrous tissue, which may simulate the image characteristics of a malignant tumor on x-ray mammography, also are open to misdiagnosis by ultrasound visualization since these dense but benign masses may attenuate the sound beam. However, according to our ongoing studies, it appears possible to correctly differentiate such dense benign masses from malignant tumors by studying their attenuation characteristics in relation to frequency.^{3,14}

Unlike x-ray imaging, ultrasound can image both cystic and solid masses in the dense breast with great clarity; therefore, for the younger patient with a fibrocystic breast or other benign breast pathology, ultrasound usually provides an accurate diagnosis without the accompanying use of x-ray mammography and, in many cases, eliminates the need for a biopsy.² Additionally, this modality can be used repeatedly on the same subject without any known damaging or cumulative effects to either follow the normal time course of benign pathology such as fibrocystic disease, or to observe the effect of some prescribed course of therapy.

In our program, we have found that certain techniques are essential for correct diagnosis. One of the most important is that each mass is scanned at step intervals of 1 mm. It is not uncommon to find in past and some current ultrasound breast examination programs that scans are carried out primarily over the central region of the mass or, if the mass is completely scanned, large step intervals such as 5 mm are used. The use of techniques that allow only a small volume of the mass to be examined partially accounts for some of the failures in

the past regarding the misdiagnosis of malignant tumors by ultrasound techniques.³ The importance of examining masses as closely as possible is illustrated in *Fig. 5*. Large interval scanning reveals a mass that appears to be benign, whereas, 1 mm interval scanning demonstrates the malignant characteristics of the neoplasm.

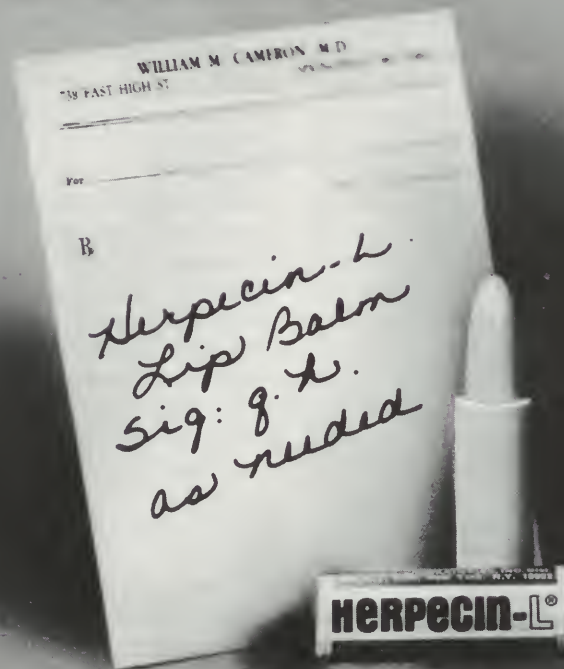
Conclusion

On the basis of the results that have been obtained over the last three years in our ultrasound breast program, we recommend that ultrasound be the initial imaging examination for the young patient and for patients of all ages with fibrocystic disease. In the older patient with a suspicion of malignancy, x-ray mammography combined with ultrasound should be used because this approach significantly improves diagnosis.

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Umbrellas and Mole Beans: A Warning About Acute Ricin Poisoning

G. WILLIAM HENRY, M.D.¹
G. RUDOLPH SCHWENK, JR., M.D.²
PEGGY A. BOHNERT, M.D.³

ON SEPTEMBER 7, 1978, while waiting for a bus near Waterloo Bridge in London, Georgi Markov, an exiled Bulgarian broadcaster, was gently poked in the thigh with an umbrella. He died three days later after a bizarre, intense illness. A year later, two cousins, ages 4 and 5, living in a small southern Indiana town, were referred to James Whitcomb Riley Hospital for Children (RHC) complaining of intense abdominal pain, necessitating admission and intravenous fluids.

What do an East European exile in disfavor with his country's secret

service and two Hoosier children have in common? Acute ricin poisoning. At the autopsy of Georgi Markov, a 1.5 mm sphere with two tiny holes (that contained the ricin) was found in the subcutaneous tissue beneath the superficial thigh wound. After analysis of the tiny sphere, experts at the (British) Government Chemical Defense Establishment concluded that it contained a minute amount of ricin. The coroner ruled that Markov died by homicidal poisoning.¹

Case Report

While playing, two young girls discovered a canister containing a walnut and castor beans. Thinking them to be shelled nuts, both children chewed about four seeds.

Ten hours after the ingestion, the four-year-old girl began complaining of severe abdominal pain associated with numerous emeses, marked lethargy and multiple loose stools. She was taken to the local hospital where she received gastric lavage, dicyclomine hydrochloride and intravenous fluids, prior to transfer to RHC. On arrival at RHC, she complained of severe, colicky abdominal pain. Her physical examination was unremarkable. Laboratory results included 1+ hematuria in her initial urinalysis and an elevated serum free hemoglobin (21 mg/dl). She was continued on intravenous fluids for 24 hours. The remainder of the hospital course was uneventful, and her laboratory tests returned to normal.

TABLE 12:

Plants Containing Phytotoxins

<i>Abrus precatorius</i>	precatory bean
<i>Aleurites fordii</i> et. spp	tung tree
<i>Jatropha curcas</i>	barbadosnut
<i>Ricinus communis</i>	castor bean
<i>Robinia pseudoacacia</i>	black locust

Her five-year-old cousin began episodic vomiting with severe colicky abdominal pain 12 hours after ingestion. She received treatment similar to that administered to her cousin at the same local hospital. She complained of severe abdominal pain and nausea on admission to RHC. Her physical examination and laboratory tests were unremarkable. Intravenous fluids were continued overnight, and the hospital course was uneventful.

Discussion

Castor beans, widely known as mole beans, are seeds of the castor oil plant (*Ricinus communis*), a shrublike herb grown as an ornamental yard plant and cultivated commercially for its extractable oil. It is found occasionally as a weed in the more temperate climates of the United States. Although the entire plant is poisonous, its poisonous substance, ricin, is more concentrated in the seeds.

Ricin, a member of a class of proteins called phytotoxins, is one of the most toxic substances known (Table 12). The lethal injectable dose is as low as 0.00000001% body weight. Although oral administration reduces by several hundred

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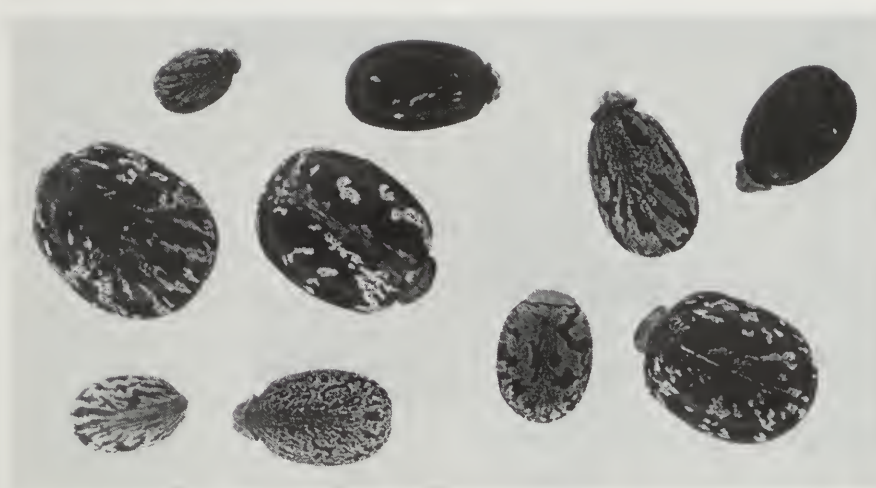


FIGURE 1—Castor beans: Eating them can kill you.

times the minimum lethal dose, ricin remains a potent poison. One castor seed can kill a child. Although until recently considered a single compound, ricin has been purified into several structurally related glycoproteins, termed lectins, with one lectin class retaining a nontoxic hemagglutinating activity and another lectin class retaining the toxic properties.³ The toxic ricin glycoprotein consists of two peptide chains bound by disulfide bridges. One chain binds to cell surface receptors, and the other chain exerts the toxic effects by inhibiting protein synthesis through blocking ribosome peptide chain elongation, after gaining cell entry.⁴

Acute ricin poisoning most commonly occurs by ingestion of castor beans by children. Castor seeds are mottled, elliptical seeds colored gray, black, brown or white (*Figure 1*). Symptoms generally occur after a latent period of several hours to several days. Initial symptoms are related to gastrointestinal irritation: burning sensation of the mouth and throat, nausea, colicky abdominal pain, violent emesis and profuse diarrhea. The resulting dehydration can be severe enough to cause cardiovascular collapse and renal failure.

Once absorbed, ricin can exert its

direct toxic effect on any organ. The liver, pancreas and kidney are particularly prone to injury, with severe pathophysiological disturbances such as hypoprothrombinemia, hypoglycemia and acute uremia. Severe central nervous system disturbances including brainstem respiratory center paralysis may accompany more severe intoxication.^{5,6} Allergic reactions (including urticaria, asthma and anaphylaxis) can be precipitated by direct contact and by inhalation. The former affects agricultural workers handling the castor oil plant and by contact with imported necklaces made with the ornamental beans; the latter follows industrial workers' exposure to ricinus dust.¹

Diagnosis of ricin poisoning depends on a history of exposure to the castor oil plant or its seeds and compatible symptoms and signs. There is no confirmatory laboratory test.

Treatment of ricin poisoning begins with the recognition of the varied routes of potential exposure, an awareness of the typical latent period prior to the onset of symptoms, and an appreciation of the potential for multiorgan dysfunction. Admission for close observation, particularly of children, is warranted. Treatment is entirely supportive.

Particular emphasis must be directed toward prevention and correction of dehydration from gastrointestinal losses.

As with any poisoning, the most successful and economical treatment is prevention. Prevention begins with education of the public to the severe toxicity of the castor oil plant and castor seeds. Castor seeds can be purchased throughout Indiana at plant nurseries, seed stores and other retail stores. The seeds are sold in presorted packages and by bulk weight. After discussions with the Indiana Attorney General's Office and the Indiana Seed Commissioner at Purdue University, we learned that no warning label is required by Indiana law nor actively recommended as a voluntary measure, simply because castor seeds are registered as flower seeds in this state. No statutes apply to the sale of flower seeds, even if poisonous.

More desirable as a preventive measure would be active discouragement of domestic cultivation of this fast growing, leafy annual plant as a decorative shading plant or as a garden "guard" against small animals. Equally vigorous discouragement of the use of the seeds for killing moles in residential lawns is important, since children playing in these areas are likely to find the attractive seeds inviting.

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Clinical Use of Glycosylated Hemoglobin

The development of a more rapid assay for glycosylated hemoglobin, now available to Indiana physicians, has provided a means by which the clinician can monitor longer term control of diabetic patients. . . .

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RECENT DEVELOPMENTS in the laboratory have allowed physicians the opportunity to better monitor the control of their diabetic patients. Previously, control had to be monitored with blood sugars, 24-hour urines and home urine testing, all of which provided only superficial information concerning long-term control. The development of a more rapid assay for glycosylated hemoglobin has provided a means by which the clinician can monitor longer term control. Since this assay has now become available to physicians in Indiana, it is the purpose of this article to explain the assay, its relevance and limitations.

History

The presence of an abnormal amount of a rapidly migrating hemoglobin in diabetics was first noted by Huisman and Dozy in 1962.¹⁴ Further work by Rahhar confirmed that there were three hemoglobin components which

eluded from a cation resin more rapidly than adult hemoglobin.²⁹ The amounts of these peaks were far greater in the diabetic population than in the non-diabetic population. It became evident that individuals whose diabetes was significantly out of control on a chronic basis exhibited larger peaks than the well controlled diabetics.

Further investigation revealed that these subcomponents of adult hemoglobin had glucose attached (glycosylated) to the beta chain of the hemoglobin.²⁷ This modification was a non-enzymatic, ketamine linkage to the valine, which is located at the terminal end of the beta chain. The attachment of the glucose (glycosylation) in this fashion is a two-step reaction. The first step is to form a Schiff Base, which is an aldimine. This reaction is reversible but is rate limiting. The change from hemoglobin and glucose to the aldimine form of hemo-

globin takes place slowly but favors the reaction to the formation of the aldimine, particularly in the presence of high levels of glucose. The aldimine then converts to a ketoamine linkage of the glucose to hemoglobin. This form is referred to as glycosylated hemoglobin, which is often called hemoglobin A-1-C.

The amount of hemoglobin in the aldimine or the ketoamine forms is determined by the amount of glucose in circulation over a period of time. The more glucose to which the hemoglobin is exposed in its life time, the greater the amount converted to glycosylated hemoglobin. Due to the kinetics of this reaction, the length of time needed to create glycosylation and the seeming irreversibility of the ketoamine form, determination of the amount of glycosylated hemoglobin provides an indirect measure of the amount of glucose in the red cell's environment throughout its life cycle (120 days).

More recent studies of the hemoglobin A-1-C molecule have shown that glycosylation actually takes place on several locations on both the alpha and beta chains. These attachments are to lysines and account for approximately 8-10% of glycosylation.²⁸ Examination of the portions of adult hemoglobin which become glycosylated reveals that there are actually three components. These components are termed hemoglobin A-1-A, A-1-B and A-1-C. Of the total adult hemoglobin in circulation, hemoglobin A-1-A comprises 2%, A-1-B is 1% and A-1-C is 5%.²⁷ In the presence of elevated blood sugars, the amount of glycosylated hemoglobin increases significantly with the major component being A-1-C. The most commonly available assay actually measures total glycosylated hemoglobin, not true A-1-C. The difference between a true A-1-C and a total A-1 is of little clinical significance in most situations.

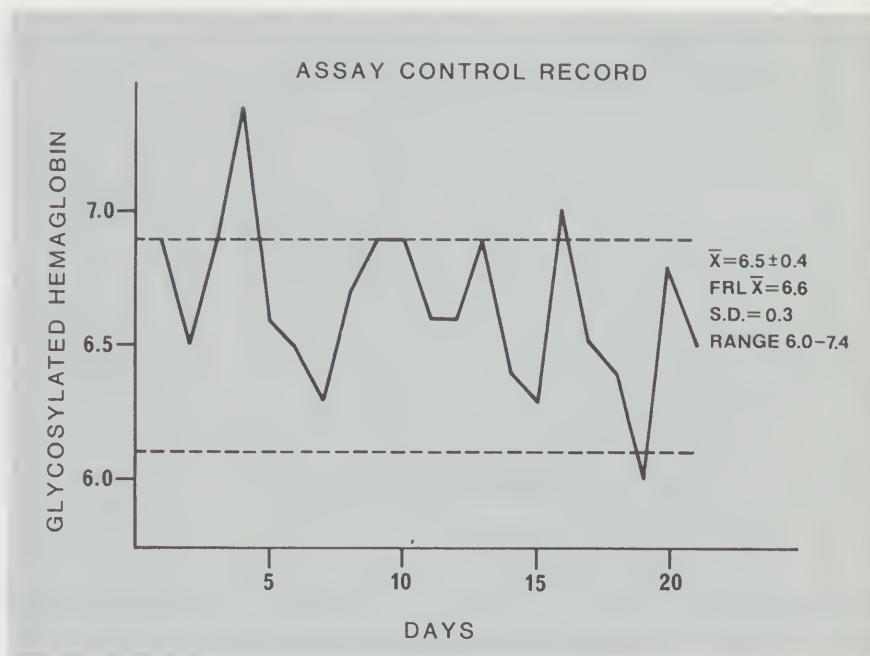


FIGURE 1: Assay control record for a three-week period.

Assay Methods

There are three methods of assay for glycosylated hemoglobin. The Trivelli method is a chromatographic assay, which was developed in 1971. Fluckiger and Winterhalter developed a colormetric assay in 1976 and Cole's high pressure liquid chromatography method was developed in 1977.²

The most commonly used method is a modification of the Trivelli method, using a short column of cation exchange carboxymethylcellulose resin. At a selected pH and ionic strength, the hemoglobin that is glycosylated has less positive charge, which permits it to migrate through the column more rapidly than hemoglobin A.¹⁷ Because of this property the glycosylated hemoglobins also have been termed "fast hemoglobins." When this method of assay is employed, great care must be taken in the handling of samples and conditions of the assay. Samples are drawn in EDTA tubes (lavender stoppered tubes) and should be refrigerated. The assay must be run at the proper

pH and temperature to insure reliability. The laboratory must monitor its own reproducibility of control closely (Fig. 1).

The day-to-day variation shown in Figure 1 exhibits a standard deviation of 0.3 from the average level determined of 6.6%. These data show that when care is taken in the assay method the results are quite reproducible. It was originally felt that the assay had to be run immediately after it was drawn. Figure 2 shows that assays run on the same samples over a five-day period usually remained within a 10% range of the original determination. This range would not change any clinical management programs or impressions of diabetic control.

Normal values: The ranges of normal vary from lab to lab and method to method. Normal values have been reported to be 6.8 to 8.0, 5.2 to 8.6,²⁵ and 5.0 to 8.0.²⁹ We have used the levels of 5.5 to 8.5% as normal.

Values in diabetes: Since the amount of glucose in the circulation over the period of the red cell's life

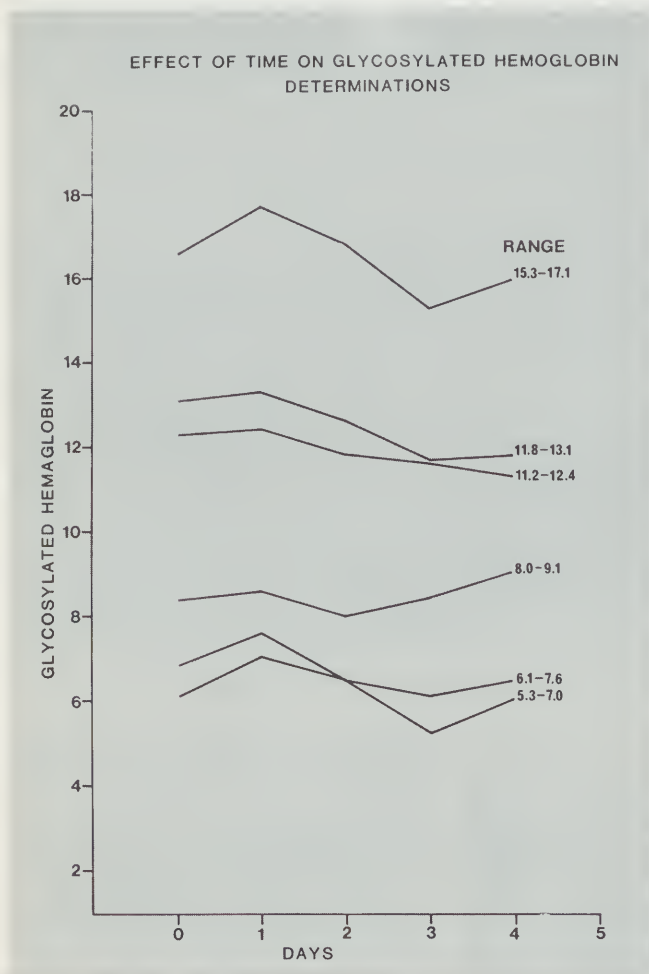


FIGURE 2: Effect of time on glycosylated hemoglobin determinations of various concentrations.

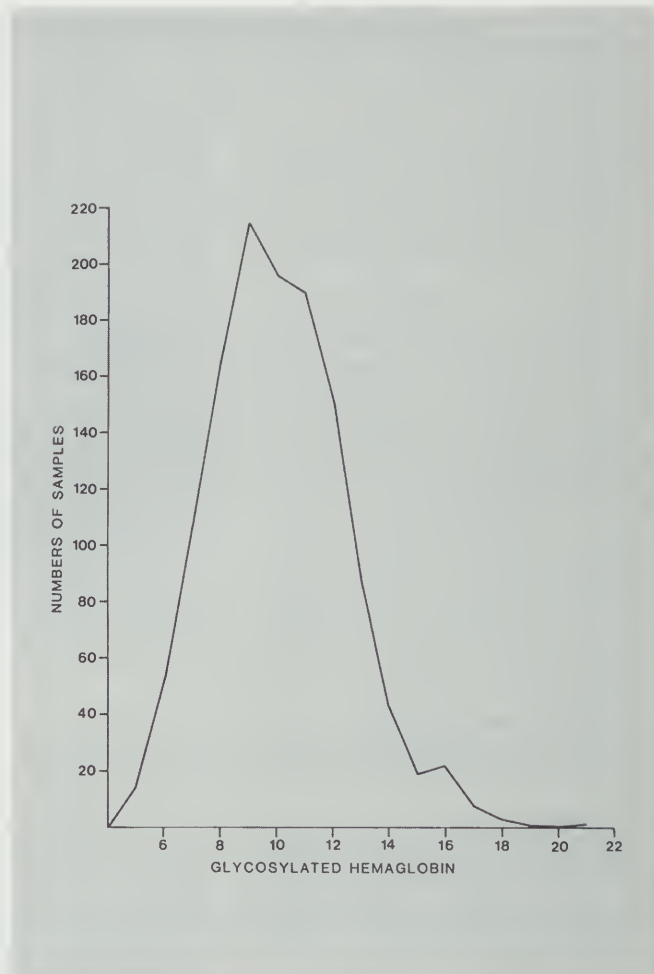


FIGURE 3: Range of glycosylated hemoglobin determinations in children with diabetes.

cycle will be reflected in the amount of glycosylated hemoglobin, elevation of this level would be expected in most diabetics. The closer that individual can maintain his or her control to physiological levels, the closer that level will be to the previously stated normal. The literature cites the ranges found in individuals with diabetes to be as follows: 11.6 to 15.8, 10.0 to 22.0,²⁵ and 9.3 to 15.5.²⁹ In our evaluation of 1,274 glycosylated hemoglobins, we have found a range of 5.5 to 21.0%, with a mean and median of 10.0. (Fig. 3)

Clinical uses: The preceding information was intended to provide

a background of the physiology and chemistry of glycosylated hemoglobin so that the values and limitations of this assay might better be understood. Some basic assumptions must be made in making use of this assay:

1. Glycosylation takes place at a rate proportionate to the amount of glucose present.

2. Red blood cells are produced at a constant rate.

3. The majority of glycosylation is irreversible (ketoamine form).

Rate of glycosylation: As was previously mentioned, the rate limiting step is the creation of the aldimine

hemoglobin, which then converts to the more permanent ketoamine linked glycosylated hemoglobin. The exact amount of glucose necessary to glycosylate a given amount of hemoglobin is not known.

It is actually difficult to determine how long it takes to accomplish glycosylation. Various studies have attempted to determine the period of glycemia represented by a given glycosylated hemoglobin level. Estimates have been made that a level represents blood sugars of 4 to 10 weeks preceding^{5,8,27} urine sugars of 3 to 8 weeks,^{1,6,18,19} and 24-hour urines of 8 to 10 weeks¹¹ preceding. A lapse into poor control may result

in an increase in glycosylated hemoglobin as rapidly as 3 to 4 weeks.³ To return to "excellent" control does not usually result in as rapid a return to improved levels.²³ The length of time necessary to return to an improved level lends support to the concept of permanent bonding in the ketoamine linkage.

Rate of red cell production. In order to assume that the glycosylated hemoglobin represents approximately an 8 to 10 week period, it is necessary to assume that red cells are made and destroyed at a fairly constant rate and are glycosylated in an amount that varies directly with the amount of glucose in their environment.

The average life cycle of a red cell is 120 days. A sample which is drawn on a particular day would, therefore, contain a similar amount of 1 through 120 day old red cells. On this assumption it becomes possible to assume that the determination of glycosylated hemoglobin indirectly reflects to blood sugars of about 2 to 3 months. If, however, the patient suffers from a condition which alters either the rate of production or destruction the time period presented by a given determination will be more or less as will be the relative value.¹

The majority of the glycosylated hemoglobin is assumed to exist in the stable ketoamine form. For the assay to provide the most information about long term control, it is necessary to have the glucose remain attached to the hemoglobin molecule for the life of the red cell. In watching newly diagnosed diabetics, it appears that there actually can be a fairly rapid change in glycosylated hemoglobin. In the first week the average value fell 2.5%, second week 1.1% and third week 0.23%.²¹ Recent studies have shown that it is possible to see rapid changes in glycosylated hemoglobin of 1 to 2%.¹³ It appears that the

glycosylated hemoglobin exists in two forms which cannot be distinguished chromatographically so that the usual determination measures both the 80 to 90% of irreversible glycosylated hemoglobin and the 10 to 20% labile.¹³

The amount of rapid change that may take place⁸ seems to be proportionate to the value of glycosylated hemoglobin. It is possible that the assay is measuring the aldimine form as well as the ketoamine form. The use of incubation of red cells in saline¹³ or dialyzed hemolysates decreases the effect of acute changes in glucose. The significance of the 10 to 20% variation in the usual clinical situation is questionable. It is doubtful that the evaluation of a particular patient's condition would be so altered by the value obtained by special handling to merit the cost of inconvenience.

It is of interest to note that glycosylated hemoglobins correlate with triglyceride⁸ and cholesterol¹¹ levels. Triglycerides and cholesterol have been used traditionally as means by which chronic levels of control could be estimated.

The period of control reflected by a determination of glycosylated hemoglobin is still assumed to be 2 to 3 months, with 10 to 20% of the value being determined fairly acutely. Recently, Dunn *et al.*,⁴ used a thioibabutaric acid assay of serum for glycosylation. Because serum proteins have a shorter half life, this assay reflects more acute changes in the blood sugar. The use of this assay plus glycosylated hemoglobin might provide a means to measure both recent and chronic levels of control in the future.

Levels of glycosylated hemoglobins do not vary with age, weight, duration of disease or family history.^{22,27} Patients with newly diagnosed type 2 diabetes have the highest levels, while type 1 have slightly lower levels at diagnosis and

diet-treated are lowest. This finding is assumed to be due to the length of time the patient has been significantly hyperglycemic at diagnosis.²⁷

The amount of elevation of glycosylated hemoglobin in individuals undergoing oral glucose tolerance tests is directly related to the initial fasting level⁷ and the peak or area under the curve.¹⁹ Significantly elevated glycosylated hemoglobin offers a measure by which to predict the aggressiveness in therapy which will be necessary.²³ We have considered the determination of a two-hour post-prandial blood sugar with a glycosylated hemoglobin to be a far more reasonable and reproducible means of screening than the use of the traditional oral glucose tolerance test.

Although the use of glycosylated hemoglobin in screening for diabetes is valuable, the major use of the test is to monitor the known diabetic. Due to the time required to accomplish glucosylation, it is not a useful determination for evaluation of day-to-day control but is a monitor of the overall success of the longer term efforts at control.²⁴ The absolute value of the test is that it is not affected by previous meal ingestion, exercise or other acute perturbations of the blood sugar occurring by accident or design.¹⁵ Because of the scope of this test, it is of particular value in those patients with unusual renal thresholds, unstable or brittle diabetes, who provide no home monitoring and those who falsify records and/or "tune up" just prior to a check-up. It is a helpful clue as to the success of a therapeutic program. We have used it specifically to evaluate the need for a split dosage in an individual who feels that there are no problems on a single dose. Additionally, the patient who is being treated with diet alone or oral agents might be evaluated as to the need to move up the therapeutic ladder. Just as patients become oriented to

blood sugar and 24-hour urine results, they are now becoming concerned about their "A-1-C level."

Patient interest has been intensified because there now is speculation that the glycosylation or other proteins may have a role in the development of chronic complications of diabetes. Although results have been less than clear cut, studies have suggested a relationship between elevated glycosylated hemoglobins and vascular disease,^{23,27} cataract formation³ and neuropathy.³ If glycosylation of proteins is directly related to the development of complications, the value of periodic determination of levels of glycosylated hemoglobin becomes of greater value. Falsely elevated levels can occur in severe renal failure, presence of Hemoglobin F or if the test is run at a temperature over 75°F.¹⁷ Presence of other abnormal hemoglobins such as S, C or D may result in falsely low values.

Summary

Determination of glycosylated hemoglobin (also called A-1-C) has provided the physician caring for patients with diabetes with a valuable tool. Through this test a more meaningful monitoring of chronic control can be obtained. Glycosylated hemoglobin is another means of monitoring the patient, not intended to replace the traditional blood sugars, 24-hour urines, and home monitoring. It tends to bridge the gaps left by the episodicness of other methods of evaluating control.

Based on the physiology explained herein and the value of the results in evaluation of total control and perhaps the risk of development of complication, we suggest that this test be obtained at least every 8 to 12 weeks. The life cycle of the red cell and the observed rate of change of A-1-C levels establish this time schedule for the most meaningful monitoring of control.

Efforts put forth by patients to improve control usually are rewarded by improvement of A-1-C levels. Some patients are able to bring their levels into the normal range. We have found this to be particularly true of those patients

using the insulin infusion pumps. If glycosylation of body proteins leads to the development of complications, efforts to contain normal A-1-Cs are certainly warranted for the greatest quantity and quality of life.

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CME QUIZ

Arthritis in Childhood

CONTINUED FROM PAGES 559-564

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

- Juvenile Rheumatoid Arthritis is probably not a single disease. The subtypes are classified according to which of the following:
 - clinical manifestations during the first 6 months.
 - laboratory findings.
 - sex of the patients.
 - presence of spinal involvement.
- The typical fever curve of systemic JRA is said to be of diagnostic value. The pattern is described as which of the following:
 - remittant pattern with range 100-104.
 - quotidian pattern with daily afternoon spike to 105.
 - periodic pattern with 3/7 days with fever.
 - sustained pattern with range 102-103.
- About 90% of systemic JRA patients have a rash. This rash is described as:
 - vesicular, pruritic
 - urticarial
 - evanescent, macular, pale erythematous
 - photosensitive, malar erythema
- A 3 year old girl is brought into the office with a history of falling 3 weeks ago. She limped for 2 days but apparently recovered until 8 days ago when her knee became swollen again. You would do which of the following:
 - assume renewed trauma and cast her knee X 3 weeks.
 - discount possible infection since she's not particularly septic appearing.
 - do an arthrocentesis, culture the synovial fluid and analyze the fluid for mucin clot, white count with differential, and glucose.
 - diagnose JRA and start aspirin therapy.
- Iridocyclitis is a major systemic feature most commonly seen in which subtype of JRA?
 - systemic onset.
 - seronegative polyarticular.
 - Rheumatoid factor positive arthritis.
 - pauciarticular onset.
- The iridocyclitis of JRA is usually asymptomatic. The studies to date indicate that one laboratory test may be helpful in identifying "at risk" patients. This test is which of the following:
 - Rheumatoid factor by sheep cell agglutination test.
 - erythrocyte sedimentation rate.
 - ANA.
 - C3 and C4.
- The one subtype of JRA patients that really does not have an adult counterpart is which of the following:
 - seropositive polyarthritis.
 - systemic onset.
 - late onset pauciarticular (HLA-B27+).
 - early onset pauciarticular ANA positive.

July CME Quiz Answers

Following are the answers to the CME quiz that appeared in the July 1981 issue of THE JOURNAL: "Multiple Sclerosis," by Oldrich J. Kolar, M.D.

- | | |
|------|-------|
| 1. c | 6. c |
| 2. d | 7. d |
| 3. b | 8. c |
| 4. d | 9. a |
| 5. a | 10. d |

- Which laboratory test has prognostic value for severity of joint disease?
 - high titer rheumatoid factor
 - low titer rheumatoid factor.
 - ANA.
 - erythrocyte sedimentation rate.

CONTINUED ON PAGE 598

Answer sheet for Quiz: (Arthritis in Childhood)

- | | |
|------------|-------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Oct. 10, 1981 to the address appearing at the top of this page.

PUBLIC HEALTH NOTES

Consumption of raw milk in Indiana has been on the increase during the past five years. This increased consumption can be attributed to two major developments in our society: 1) the increasing popularity of consuming "health" foods or "natural" food products; and 2) the economic situation with the inclination to save food dollars where possible. Raw milk purchased from a local dairy farmer usually is cheaper than store-purchased milk products.

However, there are several pitfalls for health risk involved when raw milk is consumed by the unwary public or those wishing to diet on "natural" food stuffs. Even though health regulations mandate specific sanitary standards and require that certain bacteriological minimums be met, the potential still exists that a few pathogenic organisms can be passed on to humans from raw milk. Brucellosis (undulant fever in man) is near epidemic proportions in the Southeastern United States from Texas to Florida. Even though routine herd testing is conducted, modern transportation facilities permit rapid dispersment of entire dairy herds overnight. Bovine tu-

Raw Milk

berculosis is ever-present in cattle and was detected in Indiana three years ago.

Cattle breeding techniques and animal selection over the past 30 years have created cows that can produce volumes of milk far beyond their natural capability, thereby placing the mammary system in much stress and more subject to physical injury. Stress and/or injury pave the way for the invasion of pathogenic organisms such as staphylococcal, streptococci, and coliforms. Many animals will shed these bacteria in large numbers before clinical signs of mastitis are detected and proper treatment administered. Prior to regulatory agencies insisting on pasteurization, documented cases of typhoid fever, septic sore throat, dysentery, and diphtheria were attributed to the consumption of raw milk and milk products. In the late 1940s, pasteurization temperatures were raised one degree to assure the destruction of Q-fever organisms that caused an outbreak in California.

There have been no documented disease outbreaks in Indiana traced to pasteurized milk and milk products since local ordinances and state regulations were promulgated in the 1940s. There have been many documented cases of milk-borne diseases in the United States from the consumption of raw milk and even certified raw milk in the past five years. In one case, 16 deaths were salmonellosis related and traced to certified raw milk.

Raw goat milk also is very popular with "health" food consumers. However, the same disease-carrying abilities exist with goat milk as with cow milk. Instead of undulant fever, goats transmit Malta fever.

In conclusion, the lack of milk-borne disease outbreaks from pasteurized dairy products and increased life expectancy (milk must be given some of the credit along with other food processing techniques) during the past 40 to 50 years speak favorably for the inclusion of pasteurized milk in the diet. The pasteurization process does deactivate a few enzymes and vitamin A; however, pasteurization does assure the destruction of all pathogenic organisms.



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CANCER CORNER

ACS Recommendations for Early Detection of Cancer in Asymptomatic Persons

The new recommendations reflect two very important findings of this study.

First, after an extensive review of the available information, the society finds that the early detection of cancer is a very important health promotion activity. Early detection provides a very effective way to reduce the morbidity and mortality of several cancers, and the recommended protocol represents an important way people can protect their health.

The second finding is equally positive; compared to the previous recommendations, the new recommendations provide essentially the same benefits at greatly reduced risk, cost and inconvenience. In fact, by indicating the most effective ways to use the available resources, these recommendations should actually increase the amount of health benefit delivered to the American people.

The society recommends to the public the following protocol for the early detection of cancer in asymptomatic persons:

- Women 20 and over, and those under 20 who are sexually active, should have a Pap test at least every three years, after two initial negative tests a year apart.

- Women 20 to 40 should have a pelvic examination as part of a general physical examination every three years, and women over 40 should have a pelvic examination every year.

- Every woman should have a pelvic examination and Pap test at menopause. Those at high risk of endometrial cancer should also have an endometrial tissue sample examined. High risk is defined as having a history of infertility, obesity, failure of ovulation, abnormal uterine bleeding, or estrogen therapy.

- Women over 50 should have a mammogram every year. Women under 50 should consult their personal physicians about the need for mammography in their individual cases. All women should have a baseline mammogram between the ages of 35 and 40.

- Women 20 to 40 should have a breast physical examination every three years, and women over 40 should have a breast physical examination every year.

- All women over 20 should per-

form a breast self-examination monthly.

- Men and women over 50 should have a stool guaiac slide test every year.

- Men and women over 50 should have a sigmoidoscopic examination every three to five years after two initial negative examinations one year apart.

- Men and women over 40 should have a digital rectal examination every year.

Because of these schedules, a "cancer-related health checkup" is recommended for all persons over 20 every three years, and for all persons over 40 every year. In addition to including the special tests and procedures at the designated frequencies, at these checkups patients should obtain health counseling (including consultation about smoking and other personal cancer risk factors), have a pelvic examination, and be examined for cancers of the thyroid, testicles, prostate, lymph nodes, oral region, and skin, as well as for some nonmalignant diseases.

The consultations offered at early ages are considered especially important, as it is at this time that many personal health habits are established.

It's Convention Time Again

If you haven't already done so, mark Oct. 23-26 on your calendar and plan to attend ISMA's 132nd annual convention at the Sheraton-West Hotel in Indianapolis.

Highlights will include the President's Dinner and the IMPAC luncheon. Please send your reservations, mailed to you earlier this month, to ISMA headquarters as soon as possible! See you there!



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Motrin[®]
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600 mg Tablets
One tablet t.i.d.

Please see the following page for a brief summary of prescribing information.

Upjohn

Motrin® Tablets (ibuprofen, Upjohn)

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other non-steroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin*; use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. Aspirin: used concomitantly may decrease *Motrin* blood levels.

Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness*, headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under "Probable Causal Relationship" (PCR) if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under "Causal Relationship Unknown" if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

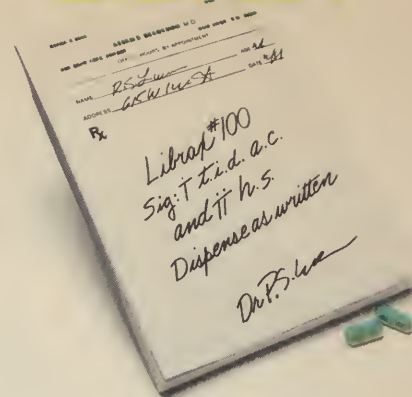
Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

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MED-B-5-S

Specify Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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Each capsule contains 5 mg chlordiazepoxide HCl
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*Antianxiety/Antisecretory/
Antispasmodic*

*Librax has been evaluated as possibly effective for these indications. Please see summary of prescribing information on facing page.

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Step
of the
Way

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and 25 mg. of hydrochlorothiazide.

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and

triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased

dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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BOOK REVIEWS

Ergometry: Basics of Medical Exercise Testing

H. Mellerowicz and V. N. Smodlaka. Translated by Allan C. Rice. Copyright 1981, Urban & Schwarzenberg, Baltimore-Munich. 420 pages with illustrations, \$49.

"Ergon" is Greek for "work" or "performance." During ergometry, the patient's performance on a stationary bicycle usually is measured in terms of physical power, heart rate, EKG, and arterial blood pressure changes. Further characteristics of cardiopulmonary performance also can be studied by monitoring respiratory time volumes, O₂ consumption, CO₂ production, blood O₂ saturation, gas tensions, and intracardiac pressures. Like any young science, ergometrics still suffers some methodologic inadequacies. It is not yet fully standardized, and data from different authors diverge. This book provides a comprehensive look at this comparatively new field.

Ergometry certainly has enriched our understanding of the functional state of the cardiovascular system. It also has provided insight into the body economy as it relates to respiration, circulation and ventilation. And, it has proven things of value to the leisure class: e.g., cycling is a "cardiovascular sport" while swimming is a "ventilatory sport." While this book does not discuss the significant advances in exercise cardiodynamics elucidated by nuclear cardiologists, most other aspects are covered *in extenso*. By reviewing the many German references on this topic, it will provide American ergologists with a useful data source.

Clinicians might find the subtitle misleading. Instead of the "basics of medical exercise testing," this book really explores the scientific basis of exercise physiology. Many clinical features, however, are included. To prevent premature pensioning, for example, many chapters document how to tell when a marginally co-operative patient may be faking a cardiopulmonary disability. Previously mysterious questions, such as why different biological performances may be required to achieve the same physical performance, are well detailed. Thus, despite its academic ambiance, this book can open many new horizons. Besides preventative and rehabilitative cardiology, other applications of ergometry to pulmonology, pre and postoperative cardiac surgery evaluation, as well as to internal, industrial and sports medicine are well discussed.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

R. R. BOWKER COMPANY announces *Medical Books and Serials in Print 1981*, which lists every publication effected in 1981 in the health sciences. The

volume is indexed by subject, author, and title for books, and by subject and title for serials. Titles represent the output of some 2,200 publishers, and appear 59,133 times under 5,541 subject headings with 6,402 cross-references. Pages are 8.5 x 11 and number 1,717. \$55.

Anatomy: A Regional Atlas of the Human Body

Carmine D. Clemente. Copyright 1981, Urban & Schwarzenberg, Baltimore-Munich. 387 pages, \$32.

For all physicians interested in how the human body is put together this will be a very useful (one might almost say "entertaining") book. Its beautiful illustrations, mostly in color, are from several sources. The majority are from the famous Sobotta atlases and those subsequently drawn by Professor Erich Lepier of Vienna. Others come from the atlases of Professors Perkopf and Wicke of Vienna; a few never published before are by Jill Renkaus of the Anatomy Department, UCLA.

Dr. Clemente, Professor of Anatomy, UCLA, and Dr. Charles A. Drew, Professor of Surgery, Postgraduate Medical School, Los Angeles, put this second edition together. In the introduction, Dr. Clemente points out that this is not to be regarded as a textbook in anatomy such as those of Gray and Cunningham. However, the legends on every page amplify the relations between anatomic structures and say a word about function. In many instances, x-ray film reproductions supplement the anatomical illustrations. For instance, a chest x-ray picture accompanies the illustrations of mediastinal structures; a coeliac tract arteriogram made directly after a retrograde renogram appears on the page opposite an illustration of the abdominal portal system of veins. The legend below the x-ray picture identifies the three primary vessels and their branches and the areas they supply. A left coronary arteriogram appears in the section devoted to the heart and great vessels.

The volume was printed in Germany, which probably accounts for the fact that such an elegantly printed atlas can be presented at such a modest price. Fortunately for American readers, all labels and legends are printed in English. Roentgenologists, surgeons and medical students will, no doubt, be the ones particularly interested in this fine atlas, but it will be a valuable addition to any physician's library regardless of his specialty.

PAUL S. RHOADS, M.D.
Richmond
Internal Medicine

BOOK REVIEWS

Nutrition and Medical Practice

Edited by Lewis A. Barness. Copyright 1981, AVI Publishing Co., Westport, Conn. 408 pages with illustrations, \$19.50.

When most of us went to medical school, "Nutrition" meant learning the symptoms of vitamin deficiency states like pellagra. Today these conditions exist only in medical textbooks. Nowadays, "Nutrition" integrates a broad spectrum of disciplines, ranging from biochemistry and medicine to statistics, anthropology, and public health.

Meanwhile, given the popular dissemination of nutrition misinformation, as epitomized recently by a cartoon showing a bewildered super-market customer who is forced to choose between four aisles: "Health Food", "Soul Food", "Junk Food", and "Food Food", someone should help patients select the messages that determine their food patterns and eating behavior. Unfortunately, physicians, faced with such societal confusion over nutrition, have too often retreated into the safer role of healer rather than educator.

This book provides a painless way to understand nutrition. No promises are made for a better life. But plenty of facts are given to support the American Dietetic Association's Recommendations on Nutrition and Physical Fitness.

Many reasons are mentioned as to why nutrition counseling remains inadequate. At least one deserves emphasis here. Even physicians who routinely order dietary instructions for their hospitalized patients often do so too late. "Suitcase Counseling" done while the patient is packing to go home (and worried about the bills, etc.) is hardly the optimum time to promote comprehension and compliance.

Topics where research has provided discordant data, such as megavitamin therapy, food additives, hyperactivity in relation to diet, and drug diet interactions are sanely reviewed. The nutrition of children is addressed in several chapters. School lunches, the problem of plate waste (\$40 million in food is dumped into school garbage cans per year), and the rationale for school breakfasts are all well researched.

Techniques of nutritional evaluation, obesity, parenteral hyperalimentation, and the special food needs of patients with cancer as well as renal and gastrointestinal diseases are approached in a practical way.

It has always been hard to simultaneously serve up large portions of this subject and to keep it palatable. This book succeeds because it is easy to read and it exudes common sense.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

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IMPORTANT — Attach mailing label from your last Journal here.

Perioperative Management in Cardiothoracic Surgery

Benson B. Roë. Copyright 1981, Little, Brown and Company, Boston. 273 pages with illustrations, \$25.

After 36 years of experience developing and refining cardiothoracic surgery, the author of this manual emphasizes both the salient and the seldom cited characteristics of perioperative management. Paradoxical times when the character of the blood in the circulating compartment fails to reflect the true degree of tissue ischemia, for example, are illuminated, along with instances where it falsely suggests deficient total perfusion.

Besides the excellent chapter on low output syndrome, other noteworthy discussions cover neurological damage, post operative depression, I.C.U. psychosis, pain, bleeding, and fever. "Korean fever," for instance, is named because this chronic temperature stays at the 38° C parallel. (Its treatment is "artful neglect.")

Enlivened by occasional historical references, e.g., the three bottle pleural suction apparatus "was developed at the Massachusetts General Hospital in 1945," it also deals with modern phenomena like how to manage a pulmonary artery perforation from a Swan-Ganz catheter. Practical admonitions abound; for example: avoid the slurping noise when aspirating blood from the operative field to minimize blood trauma.

How to identify patients who will not survive pulmonary resection—including measurement of pulmonary vascular resistance with exercise—is particularly well discussed. And instead of listing the usual pieties about ventilator weaning, individualization rather than application of rigid criteria is suggested.

Some omissions exist: e.g., low dose Dopamine to prevent renal failure. And too little is said about temporary and A.V. sequential pacing or open chest cardiac massage. House officers, critical care nurses, and other cardiothoracic strategists who know all the pitfalls of this terrain, but who still fall into them anyway, will enjoy this book.

ALAN T. MARTY, M.D.
Evansville
Cardio-Vascular Surgery

The Management of the Burned Child: Progress in Pediatric Surgery, Vol. 14

*P. Rickman, W. Hecker, and J. Prevot. Copyright 1981,
Urban & Schwarzenberg, Baltimore. 243 pages, \$29.50.*

In *The Management of the Burned Child*, the editors and more than a dozen authors from various countries have presented a many-faceted approach to the subject.

The 200-plus page volume is well highlighted by the statement of author J. R. Solomon of Australia, page 19: "If we were to choose one medical condition to exemplify the requirements of modern medicine, it would be difficult to bypass the burn injury. Management involves many facets, including treatment of shock, acute surgery, medical care, infection control, nutritional needs, psychological and psychiatric support, parent distress and guilt, problems of the maltreated child, rehabilitation and reconstructive surgery."

Dr. Solomon's summation well encompasses the various topics covered in the volume in its 12 chapters. Topics not frequently discussed include the wisdom of resuscitating the child with an extremely severe burn and the perhaps controversial subject of zinc and copper replacement therapy.

The book is well written, well edited, and generously illustrated. It can be enthusiastically recommended to family physicians, pediatricians, surgeons—especially pediatric surgeons—and nurses who are specialized in burn care or are otherwise involved.

The publisher is the highly reputable firm of Urban & Schwarzenberg of Baltimore and Munich. The international value of the book is increased by a summary of each chapter in French and one in German.

W. D. SNIVELY, JR., M.D.
Evansville
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BOOK REVIEWS

Educating Medical Teachers

George E. Miller, M.D. Copyright 1980, Harvard University Press, Cambridge, Mass. 235 pages, \$15.

An important part of the ferment now going on in medical education appropriately deals with innovations in how medical faculty members perceive their roles and how they go about the *teaching* part of their total responsibilities. No one seriously interested in medical education can be for long unaware of the important place of Dr. George Miller as an initiator and communicator of the new and sometimes upsetting trends in this always controversial field. His practical experience was gained from many years spent as Professor of Medical Education (now Emeritus) at the University of Illinois Medical Center and more recently as physician in the Thomas Rudd Health Center, Hamilton College.

The reader expecting to find a checklist of what is good and what is bad in teaching methods and tools in American medicine, followed by a neat prescription for correcting all or even the major defects in our present system, will be disappointed. On the other hand, whether he be a dean, department chairman, full-time or part-time faculty member, the interested reader may find in Dr. Miller's presentation of the crucial issues and what is being done about them some gems that can be most helpful in his own particular situation. Even the practicing physician not connected with a teaching institution who is or should be aware of the complete physician's responsibility always to be a teacher of his patients will find the volume of considerable interest.

After the Flexner report in 1910, as medicine rapidly changed to a scientific discipline as well as an art, there was only vague and sporadic awareness that the pedagogy of the medical schools—the “how” of creating stimuli, attitudes and teaching of methods of learning—was not keeping pace with the burgeoning of medical knowledge.

Miller refers to several papers and even books stressing the need for more attention to training medical teachers to do their job better, but it was really not until the early 1950s that organized efforts to define the deficiencies and correct them began.

The pioneering really started in the University of Buffalo School of Medicine with help from the Commonwealth Fund. Western Reserve University and University of Illinois initiated their programs in 1958 and 1959, respectively. The contagion spread until, by 1977, seventy-two medical schools in the United States and Canada had established units of research and development in education with the purpose of making better teachers of their faculty members. These programs have followed no particular pattern. Some are directed by professional educators recruited from non-medical university faculties working in cooperation with medical school faculties. Others are clearly med-

ical school based and staffed, with only consultative services from schools of education. In some schools, professional degrees in medical education are offered. No school seems to approach the problem in exactly the same way as another.

It is inevitable that in this new emphasis in pedagogy in medical schools with its new vocabulary containing such phrases as “learning environment,” “information versus knowledge,” “data bases versus facts,” “behavioral end points,” there has been much lost motion, confusion and disenchantment.

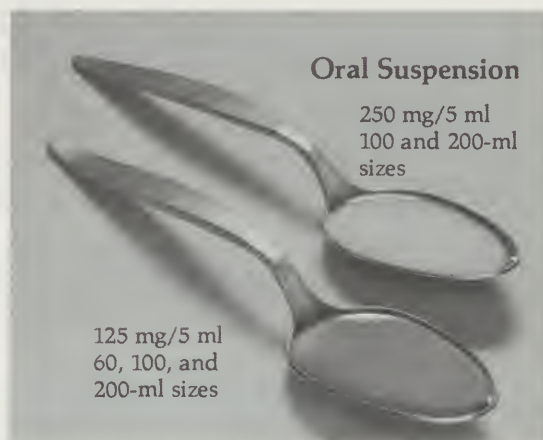
The superannuated author of this review attended a good medical school (Rush), whose clinical faculty was composed exclusively of part-time, non-paid physicians. Teaching medical teachers how to teach was not in the curriculum of any medical school at that time. Among these clinicians, however, were some superb teachers whose forums were the bedsides of patients, stairwells where one stopped to talk while making rounds, autopsy rooms and the Greek restaurant across the street—more often than the amphitheater.

But nostalgia gets us nowhere. Improvements needed to be made and are being made. As Miller points out, medical faculties are gradually coming to realize that the business of medicine is to help people with problems that cannot be departmentalized. For instance, the patient with peptic ulcer disease may have to be the common concern of the surgeon, the internist and the psychiatrist. The fences erected and fiercely defended by the various “disciplines” of medicine are slowly coming down. Although it has been very slow in coming, there is, at last, occasional recognition that time and effort spent in teaching deserves as much in financial and academic reward as “scholarly activity” (research and publication). The new blood infused from a few professional educators has stimulated medical teachers to give more thought to helping students define their ultimate goals better and adjust to the social changes that have made delivery of medical care a different task from what it was a generation ago. The new emphasis, though it is really not new at all, seems to be to get medical teachers to be more complete physicians and create a new relationship with students in which a partnership dedicated to the delivery of the best possible care of the patient is the mutual goal.

In a good summing up, Miller says, “In the best sense . . . educational units should aim to become the educational conscience of a medical school, seeking neither converts to a new way of life nor academic accolades, serving simply as the institutional gyroscope that helps a faculty to keep on course in fulfilling its educational mission.”

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International Cancer Symposium

The Fifth International Symposium on the Prevention and Detection of Cancer is scheduled to meet in Sao Paulo, Brazil, on May 16 to 20, 1982. CME credit hours will be arranged for U.S. participants.

For program, abstract forms and travel and accommodations information write to: Medical Congress Coordinators, 1212 Avenue of the Americas, New York, N.Y. 10036, or phone (212) 840-0110.

Stanford Offers Intensive Care Course

"Intensive Care" is the subject of the CME course to be conducted by Stanford University School of Medicine Nov. 2-6.

The course is designed on a multidisciplinary basis. Registration fee is \$325, which includes lunch for all days except Friday. Registration must be made before Oct. 28.

For program and registration form with choice of elective sessions and ICU Rounds, write to Office of Postgraduate Medical Education, Stanford University School of Medicine, TC-129, Stanford, Calif. 94305, or call (415) 497-5594.

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I.U. Pediatrics Symposium

The 9th Annual Fall Pediatric Surgery-Pediatrics Symposium concerning "Care of the Seriously Ill Child" will be held Sept. 30-Oct. 1 at the Indianapolis Hilton Hotel at the Circle. It is sponsored by the Indiana University School of Medicine.

Visiting faculty will join I.U. faculty members in discussing a variety of topics, including meconium aspiration, neonatal monitoring, Reye's syndrome, burns, collagen disorders, bone tumors, asthma, and several others.

For information, contact Jay L. Grosfeld, M.D., symposium director, Riley Hospital, 1100 W. Michigan St., Indianapolis 46223 (317-264-4681), or Joni Downs, registrar, Division of CME, I.U. School of Medicine, Indianapolis 46223 (317-264-8353).

Gresham Memorial Conferences

The First Annual Edwin L. Gresham Memorial Perinatal Conferences will be held at the Hyatt Regency, Indianapolis, Nov. 18-20.

"The Critically Ill Newborn" will be discussed Nov. 18 and "Fetal Metabolism" will be discussed Nov. 19-20. A panel of internationally recognized speakers will be featured.

For information, write to James Lemons, M.D., Riley Hospital for Children, 1100 W. Michigan St., Indianapolis 46223.

Annual Pathology Meeting

The annual meeting of the U.S.-Canadian Division of the International Academy of Pathology will be held March 1-5, 1982, at the Sheraton Boston.

The Maude Abbott Lecture, entitled "Soft Tissue Tumors in the 19th and 20th Century," will be delivered by Dr. Raffaele Lattes on Tuesday, March 2.

Further information about the meeting and courses may be obtained from Dr. Nathan Kaufman, secretary-treasurer, U.S.-Canadian Division, International Academy of Pathology, 1003 Chafee Ave., Augusta, Ga. 30904.

Two-Day Computer Seminar

"Choosing and Using a Computer System in a Private Medical Practice" is the subject of a course to be conducted by The Chicago Medical School Oct. 16-17 at the Chicago Hyatt Regency/Woodfield. Tuition is \$295. It is worth 16 CME credits in Category 1.

Registration information is available from Connie Scott, The Chicago Medical School, One Chapman Road, Burlington, Ill. 60109, (312) 683-2066.

Health Policy Workshop

"Priority Setting in a Competitive Environment: Strategies for Survival," a five-day health policy course for health professionals, will be offered Oct. 11-16 by the Department of Health Administration, Duke University Medical Center, and the Health Services Research Center, University of North Carolina. The course will be held at the Carolina Inn, Chapel Hill, N.C. Fee is \$375.

For details, contact David Falcone, Ph.D., course director, or Stephen Cohn, Box 4018, Health Administration, Duke University Medical Center, Durham, N.C. 27710. Tel: (919) 684-4188.

National 'Jail' Conference

The AMA, in cooperation with the American Correctional Health Services Association, will sponsor its Fifth National Conference at the Chicago Marriott Hotel on Oct. 30 and 31.

Some 500 people are expected to attend. Nearly 40 workshops offering a great variety will focus on every aspect of correctional institutions.

For more information, write to B. Jaye Anno, director, Department of Correctional Activities, AMA, 535 N. Dearborn, Chicago 60610.

Heart Assn. Scientific Sessions

The 1981 scientific sessions of the American Heart Association, Indiana Affiliate, will be conducted Friday, Oct. 2, at the Indiana Convention-Exposition Center, Indianapolis.

Simultaneous all-day sessions for physicians (fee: \$50), nurses and nutritionists (\$20) are planned. Fee includes lunch. No fee will be assessed for students, but they will be charged \$10 for lunch if attended.

For registration and fee payment, contact the Indiana Affiliate at 222 S. Downey Ave., Suite 222, Indianapolis 46219.

Peripheral Vascular Symposium

The 11th Annual Peripheral Vascular Disease Symposium, under the chairmanship of Dr. William E. Evans, will be held Oct. 22-24 at St. Anthony Hospital, Columbus, Ohio.

The faculty represents many American universities and Hammersmith Hospital of London, England. Tuition for physicians is \$200, for R.N.s and technicians \$100. Seventeen Category 1 credits.

Mail reservations and checks to Mrs. Pat Owens, St. Anthony Hospital, 1450 Hawthorne Ave., Columbus, Ohio 43203.

G-I Cancer Conference in Florida

The National Conference on Gastrointestinal Cancer will be conducted by the American Cancer Society Dec. 8-10 at the Fontainebleau Hilton Hotel, Miami Beach, Fla.

The meeting is open to all physicians. There is no registration fee. Advance registration is requested. The program is acceptable for 13 prescribed hours by the AAFP and 13 hours Category 1 with the AMA.

For details, write to Nicholas G. Bottiglieri, M.D., 777 Third Ave., New York, N.Y. 10017.

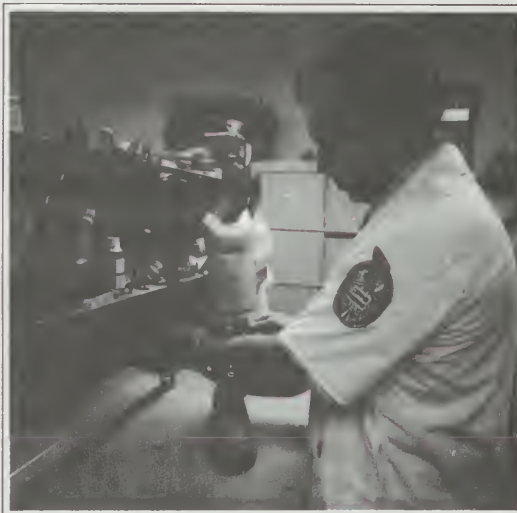
San Diego State Seeking Applicants

Applications for August 1982 are now being accepted by the Graduate School of Public Health, San Diego State University from obstetricians and pediatricians interested in a career in the field of maternal and child health.

The training program lasts nine months.

Address inquiries to Helen M. Wallace, M.D., Division of Maternal and Child Health, Graduate School of Public Health, San Diego State University, San Diego, Calif. 92182.

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Newborn Symposium in Louisville

Lewis A. Barness, M.D., will be the 1981 Distinguished Louisville Pediatric Society Lecturer on Wednesday, Oct. 28, at noon in the Health Sciences Center auditorium, Abraham Flexner Way. He will discuss "Nutrition in Older Children."

In making the announcement, the Department of Pediatrics, University of Louisville School of Medicine, also unveiled its plans for the 15th Annual Newborn Symposium on Oct. 29 and 30. It, too, will be held in the Health Sciences Center auditorium. Participants will be Dr. Barness, Dr. John Johnson, Dr. James A. Lemons, Dr. Grant Morrow III, Dr. Griffith E. Quinby Jr. and Dr. Joseph B. Warshaw.

For details, contact Billy F. Andrews, M.D., Department of Pediatrics, University of Louisville School of Medicine, Louisville, Ky. 40292.

CME Meeting in Indianapolis

A regional CME meeting sponsored by the American College of Physicians will be conducted in the Hilton Hotel in Indianapolis on Nov. 20. All physicians are privileged to attend. For full information write Walter J. Daly, M.D., Emerson Hall, Room 317, 1100 W. Michigan St., Indianapolis 46223.

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Cardiopulmonary Bypass Conference

A CME conference on "Cardiopulmonary Bypass: Current Perspectives" will be conducted at the Jewish Hospital, Louisville, Oct. 3.

The course is certified for 6½ hours of Category 1 credit. It will cover management of the patient before, during and after cardiopulmonary bypass.

Write or call Sarah A. Kelly, Heart Institute of Kentucky, 217 E. Chestnut St., Louisville 40202, (502) 587-4768.

AMA Retirement Workshop

"Gearing Up for Retirement" is the subject of a workshop put on by the AMA Department of Practice Management at the AMA Headquarters on Oct. 2, Oct. 28 and Dec. 4.

Items covered will include post-retirement opportunities in employment and recreation; understanding office and family finances in the event of physician death or disability; establishing a financial value to a medical practice; determining post-retirement investments, discussing the role of adjustments of the physician and spouse; and understanding estate planning.

The fee for members of the AMA or their state or county medical society is \$100; non-members, \$150. Fee includes a luncheon or dinner. There is no extra fee for spouses. Four hours Category 1 CME credit. For more info call Kimberlee Watts at 312/751-6383.

Scientific Assembly in Georgia

The Interstate Postgraduate Medical Association of North America will conduct its annual Scientific Assembly Oct. 26-29 in Atlanta, Ga.

Advance registration fee for physicians is \$140 (\$165 at the meeting). Residents and allied health personnel register for \$35.

Address inquiries to the Association at P.O. Box 1109, Madison, Wisc. 53701.

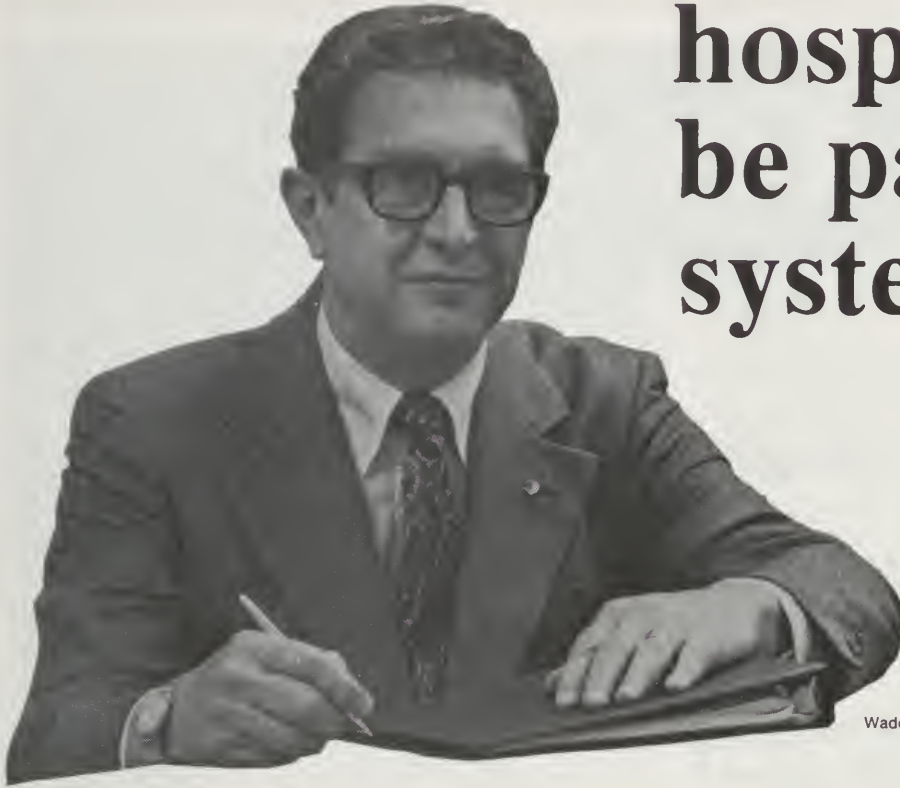
Allergy Meeting in Cleveland

The Midwest Forum on Allergy, co-sponsored by the Cleveland Allergy Society and the Ohio Allergy Society, will be held in Cleveland Oct. 2-4 at Stouffer's Inn on the Square.

The meeting is accredited for 14 AMA Category 1 credit hours.

For details and hotel reservations, contact Dr. Joseph Kelley, Cleveland Clinic, 9500 Euclid Ave., Cleveland 44106.

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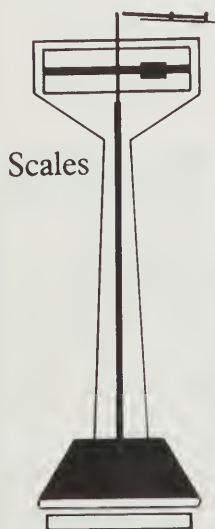


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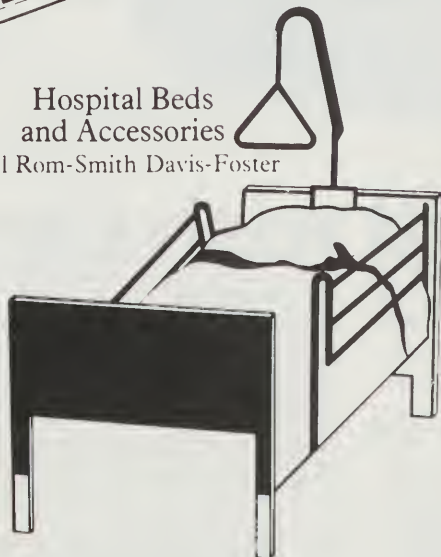


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NEWS NOTES



President's Dinner Entertainers

The Big Band sound, featuring listening and dancing music, will be provided by the "Men of Note" during the President's Dinner at the Sheraton West, Sunday, Oct. 25. Bill Fulwiler (far right) is leader of the Terre Haute group and his wife Claudia (background) is the vocalist. Besides warming their audiences with many of the old standards, the "Men of Note" also will entertain ISMA dinner guests with a selection of sounds from the Fifties.

AMA Offers Book on Drug Abuse

Drug Abuse: A Guide for the Primary Care Physician is a new AMA book designed to help physicians treat patients with drug problems. It sells for \$15, plus \$2 for handling.

The book deals with causes, incidence, diagnosis, treatment and methods for confronting and counseling drug abusers and their families. Pointers are given on prescribing practices that curb abuse of prescription drugs. Also presented are guides to chemical, proprietary and popular names of commonly abused drugs, physical signs of acute drug reactions, tests to confirm suspected drug abuse, and state and federal drug abuse agencies.

The book, prepared by the AMA Dept. of Mental Health and consultants, is available from the Order Dept., OP-323, AMA, P.O. Box 821, Monroe, Wisc. 53566.

Chiropractors Win Case in Oregon

In the first such decision, an Oregon court has ordered a hospital to establish procedures for granting privileges to chiropractors. The court ruled that the hospital denied service to the public by refusing to set standards based on training and experience for the appointment of D.C.s. The case is under appeal.

Malpractice Problems for Lawyers

Partly because it has become easier to find a lawyer who will sue another, attorneys are deep in their own malpractice crisis. As a result, bar associations in several states have formed companies to issue liability coverage for their members. With the annual premium for a \$100,000 policy now 650% above 1974 rates, many commercial liability companies are getting out of the business.

Award-Winning Medical Teaching Film

Norwich-Eaton Pharmaceuticals premiered four medical teaching films at the annual meeting of the American Urological Association. One film, "Visits in Urology-Urinary Undiversion," received the William R. Smart Grand Award for the best film.

Norwich-Eaton teaching films may be obtained on loan by writing Norwich-Eaton at 17 Eaton Ave., Norwich, N.Y. 13815. A medical audiovisuals directory is available on request to the same address.

Electronic Artificial Limb Control

Artificial limb control by electronic means is being developed by researchers at M.I.T. An upper limb prosthesis (the Boston arm) is programmed so that the biological signals originating in the brain are picked up at the stump and used to control the artificial elbow. Almost no special training is required. Research is being started on leg prostheses.

A Swedish designed movement-monitoring device called Selspot analyzes the functions of elbow and knee to enable the programming of a micro chip for ultimate domination of the artificial movements. Researchers expect analysis of the knee functions will require more time than has been the case with the elbow.

Poetry Contest Announced

"World of Poetry" is a quarterly newsletter for poets. It sponsors a poetry competition with a \$1,000 grand prize and 99 other cash or merchandise awards, totaling \$10,000. All poets are urged to enter the competition. For rules and entry form write the "World" at 2431 Stockton, Dept. J, Sacramento, Calif. 95817.

Legal Advice on Fee Payments

An unhappy patient, surprised at a gap between his insurance coverage and his physician's bill, might be inclined to take legal action. To avoid that problem, George J. Goldsborough, a Maryland defense attorney, suggests that doctors add a printed note to their bills reminding patients that insurance often will not cover the full fee and that a payment schedule or help with filing claim forms can be arranged.

NEWS NOTES

'Hearing Fair' Gets Financial Backing

The Indianapolis Foundation has granted an award of \$4,000 to the Wright Institute of Otolaryngology in support of a "Hearing Fair" to be held Oct. 17 and 18 at the Washington Square Shopping Center, Indianapolis.

Community Hospital is a co-sponsor and the event has been endorsed by the National Hearing Association. Participants will include physicians, audiologists, speech therapists, hearing aid dealers, lawyers, acoustical engineers and people with hearing disabilities.

ABC Offers Blood Facts Booklet

The American Blood Commission has published a 14-page booklet entitled *Blood Facts: Answers to Some Often Asked Questions*. It was designed to supply answers to questions that come from the public in general. It also will be of value to boards of directors of blood centers and hospitals, and to others in blood and blood systems.

Single copies may be obtained on a complimentary basis by writing to the Commission at 1901 N. Ft. Myer Drive, Suite 300, Arlington, Va. 22209. The booklet may be purchased in quantities on a price scale which varies from 75¢ per copy for two to 10 and 5¢ a copy for 500 copies or more.

Anti-Trust Policy Paper Available

A Federal Trade Commission policy planning issues paper on "Anti-Trust and the Health Professions," referred to in the July 13 *Medicine & Health* "Perspectives," has been publicly released by the FTC. For a copy, write the Public Reference Branch, Rm. 130, Federal Trade Commission, 6th and Pennsylvania Ave., N. W., Washington, D. C. 20580.

Huge AMA-ERF Check Goes to I. U.

A check for nearly \$55,557 from the American Medical Association Education and Research Foundation (AMA-ERF) was recently presented to Dr. Steven C. Beering, dean of the Indiana University School of Medicine, by Mrs. Herbert T. (Dorothy) Schiller, immediate past president of the ISMA Auxiliary.

Dr. Beering said, "I want to express the sincere appreciation of our School of Medicine for the diligent efforts of the members of the ISMA Auxiliary in their support of the AMA-ERF." He said the fund will be used mostly for student support this year. He proposes to name the first group of students "AMA Research Scholars" and the second group of recipients "AMA Graduate Fellows."

The I. U. School of Medicine's share of the AMA-ERF medical school fund in 1980—\$1.3 million—was the largest of any medical school in the country. The ISMA Auxiliary was credited with being instrumental in achieving this success.

On hand for the presentation were, in addition to Dr. Beering and Mrs. Schiller, Mrs. Glenn W. (Marianna) Irwin, Jr., president of the ISMA Auxiliary; Dr. John W. Beeler, chairman of the ISMA Medical Education Fund Committee; and Donald F. Foy, ISMA executive director.



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CME Quiz . . .

CONTINUED FROM PAGE 579

9. Classification of patients helps us to study patients and perhaps improve our understanding of the disease. It also provides clinical information helpful in caring for patients. Which one of these patients would we be inclined to follow with special attention to the spine?
 - a) 12 year old female with seronegative polyarthritis.
 - b) 3 year old male with systemic onset.
 - c) 11 year old male with bilateral swollen ankles.
 - d) 4 year old female with iridocyclitis and monoarthritis.
10. In a female with recent onset seronegative, ANA+ polyarthritis which test(s) may help to decide whether she has JRA versus SLE?
 - a) C3 and C4.
 - b) quantitative antibodies to native, double-stranded DNA (DNA %binding).
 - c) CBC and platelet count.
 - d) all of the above.

Here and There . . .

. . . **Dr. Joseph M. Black** of Seymour has been re-elected to a fourth three-year term on the Indiana University Board of Trustees.

. . . **Dr. Joel L. McGill** of Brownstown discussed the importance of a balanced diet during a June meeting of the Brownstown Business and Professional Women's Club.

. . . **Dr. Wallace A. Scea**, 65, an Elwood physician 34 years, retired from active practice in July.

. . . **Dr. Nairvittil Chandra** of Connersville has been named a Fellow of the American College of Cardiology.

. . . **Dr. Malcolm O. Scamahorn** of Pittsboro has been re-elected to the AMA's Council on Medical Service; **Dr. Peter R. Petrich** of Attica was re-elected to the AMA's Council on Constitution and Bylaws.

. . . **Dr. David G. Jarrett** of Indianapolis discussed "Summer Emergencies" during a July meeting of the Johnson County Emergency Medical Technicians.

. . . **Dr. J. Kent Guild** of Plymouth has been elected to a four-year term on the Board of Trustees at DePauw University. He is an alumnus of the Greencastle school.

. . . **Dr. Edward L. Langston** of Flora has been elected president-elect of the Indiana Academy of Family Physicians; **Dr. Robert W. Mouser** of Indianapolis was elected vice-president.

. . . **Dr. Forrest R. Buell** of Clay City has been elected president of the Clay Community Schools Board of Trustees.

. . . **Dr. John A. Forchetti**, an East Chicago cardiologist, discussed "Cardiac Drugs" at a July meeting of the Mended Hearts Club, Michigan City.

. . . **Dr. Vincent C. Scuzzo** of South Bend has been named a Fellow of the American Society of Colon and Rectal Surgeons.

. . . **Dr. Aldo C. Sirugo** of LaPorte led a wellness seminar on "Hearing Conservation" in July at the LaPorte Hospital Education Center. **Dr. James R. Carpentier** of LaPorte discussed "Heart Attack Prevention" at a previous seminar.

. . . **Dr. Charles W. Magnuson** of South Bend has been elected to the Board of Directors of the National Bank and Trust Co.

. . . **Dr. Otis R. Bowen**, Indianapolis, has joined the board of the Indiana Neuromuscular Research Laboratory.

. . . **Dr. Claude C. Reeck, Jr.**, an orthopedic surgeon, has been named medical director of Crossroads Rehabilitation Center, Indianapolis.

. . . **Dr. Herschell Servies, Jr.** has been appointed Lebanon Community School Corp. physician, succeeding **Dr. Jack L. Lenox**, who held the position 15 years.

. . . The Indiana Roentgen Society has announced the election of **Dr. Gerald Kurlander**, Indianapolis, as president; **Dr. John C. Spellmeyer**, Richmond, as president-elect; **Dr. Robert W. Holden**, Plainfield, as secretary; and **Dr. Patrick S. Dolan**, Indianapolis, as treasurer.

. . . **Dr. Richard D. Graber** of Paoli has been elected president of the medical staff, Orange County Hospital. **Dr. John W. Collier**, French Lick, was elected vice-president and **Dr. Luke B. Mosemann**, Paoli, was elected secretary.

. . . **Dr. Gerald G. Kauffman** of Elkhart has been certified by the American Board of Psychiatry and Neurology.

. . . **Dr. Lester D. Bibler** of Indianapolis, who retired last year from active family practice, has been elected president of the Fifty Year Club of American Medicine. **Dr. Leon S. McGoogan**, Omaha, Neb., was elected vice-president, and **Dr. Harold C. Ochsner, Sr.**, Indianapolis, was elected secretary-treasurer.

. . . **Dr. James A. Madura** of Indianapolis has been elected president-elect of the Indiana Chapter, American College of Surgeons. **Dr. James A. Crossin**, Indianapolis, was elected secretary-treasurer.

. . . **Dr. James R. Carpentier** of LaPorte discussed "Heart Attack Prevention" at a June meeting for the public at LaPorte Hospital.

. . . **Dr. Richard D. Feldman** of Indianapolis has been appointed clinical director of the Family Practice Residency Program at St. Francis Hospital, Beech Grove.

Council on Alcoholism Begins Operation in Indianapolis

The Greater Indianapolis Council on Alcoholism opened its new offices at 3052 Sutherland Avenue June 15. Until then, Indianapolis was the largest city in the United States without an affiliate of the National Council on Alcoholism.

John Merkle, previously industrial and public relations director for Koala Center at Lebanon, Ind., has been named executive director for the council.

The council will:

- Provide community education programs.
- Establish volunteer activities.
- Promote training programs for professionals and non-professionals and provide training and courses for community workers.
- Act as an information clearing house.
- Promote public service programs, announcements on radio and television, newspaper articles and advertisements.

• Establish a speakers bureau for classrooms, civic groups, professional societies, workshops, etc.

Persons desiring information on alcoholism are asked to call the council at (317) 926-3756.

NEWS NOTES

Voluntary Effort Gets Boost From Health Showcase Workshop



Members of the Bloomington VE panel listen to a question during a meeting of business and industry representatives. The panel members are, from left: Roland E. Kohr, chairman, Indiana Voluntary Effort Task Force; James VanVorst, St. Vincent Hospital; Larry Ratts, M.D., Bloomington; Herman Rutkowski, Lincoln National Life Insurance, Fort Wayne, and a member of the Indiana VE Task Force; and John Seffrin, chairman of the I. U. Health and Safety Education Department.

Twenty-seven state and local health service organizations recently participated in a Voluntary Effort health showcase workshop in Bloomington. Sponsored by Bloomington's VE Task Force, the workshop featured exhibits and literature provided by participating organizations that explained the resources they presently have available to assist in developing employee health programs.

Participants, led in their discussions by a five-man panel, were told that human behavior, not lack of medical care, is the leading cause of death in the United States. Lifestyle causes most major health problems, they were told, and these problems are more preventable than curable. Cigarette smoking, drunken driving and failure to use seat belts were cited as typical behavioral problems.

Bloomington's VE Task Force, chaired by Barry K. Hurtt, director of development at Bloomington Hospital, kicked off business and industry health promotion in Indiana at the request of the state VE committee. Other VE committees in Indiana will be sent guidelines for organizing similar programs in their area.

Art Group Invites Membership

The American Physicians Art Association (APAA), created in 1936, has issued an invitation to physicians to join its ranks.

The APAA has been credited by critics with producing one of the best non-professional art shows in

the country. Exhibitions, in which physicians can display a variety of creative ventures, are held annually.

This year the exhibition and annual meeting will be held Nov. 15-18 during the 75th annual Southern Medical Association meeting in New Orleans, La. The exhibition, judged by noted professional artists, includes oils and acrylics, water colors, sculpture, photography, arts and crafts, and graphics.

To apply for membership, contact Milton S. Good, M.D., Treasurer, APAA, 610 Highlawn Ave., Elizabethtown, Pa. 17022.

Patient Reaction to HMOs

A Washington, D.C., study indicates that most of 10,000 patients surveyed think they get good medical care at lower cost through health maintenance organizations, but that the services are not as good as those from fee-for-service doctors. They cited impersonal relationships with doctors, longer waits for appointments, and inconvenient locations as the major problems with the prepaid plans.

Relief from Insurance Paperwork

A company formed by 11 major insurers is working on a nationwide system that would allow electronic submission and almost instantaneous processing of health insurance claims, according to *Medical Economics*.

Insurers expect that the system will partially offset the 20% increase in claims volume anticipated by 1985. The system is scheduled to be available to hospitals by 1983 and to private practitioners by January 1984.

Dr. D. E. Harken, Pioneer Heart Surgeon, to be Richter Lecturer



Dr. Dwight E. Harken, Clinical Professor of Surgery, Emeritus, Harvard Medical School and one of the great pioneers in surgery of the heart, will be guest speaker at the Sixth Annual Richter Lectureship to be held Sept. 30 and Oct. 1 at St. Vincent Hospital and Health Care Center, Indianapolis.

The lectureship is approved for seven hours credit by the AMA and the AAFP. There is no charge for the scientific program. Reservations are required for the luncheon and/or the dinner. Call the St. V. Medical Affairs office (317) 871-2173.

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THE INDIANA MEDICAL FOUNDATION, INC.
3935 North Meridian Street
Indianapolis 46208

A foundation for charitable, educational, and scientific purposes, organized by the ISMA as an endowment fund to support the educational mission of the Association and THE JOURNAL.

Bequests, legacies, devises, transfers or gifts to the Foundation or for its use are deductible for federal estate and gift tax purposes, in accordance with the Internal Revenue Code.

The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

*"for religious, charitable, scientific,
literary or educational purposes"*

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(quinine sulfate tablets)

CAUTION Federal law prohibits dispensing without prescription
BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy.

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision, however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin.

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears.

If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdosage, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS). Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine

have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties. Urinary alkalinizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes.

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM/kg) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative, when mammalian liver homogenate was added, positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes, or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage. (Individual or multiple symptoms may represent cinchonism or hypersensitivity.)

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoprothrombinemia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia; diminished visual fields, and disturbed color vision; tinnitus, deafness, and vertigo; headache, nausea, vomiting, fever, apprehension, restlessness, confusion, and syncope.

Dermatologic/allergic: cutaneous rashes (urticarial, the most frequent type of allergic reaction, papular, or scarlatin), pruritus, flushing of the skin, sweating, occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related), epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring.

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October, 1980

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Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.



- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
- It is convenient to recommend without a prescription.

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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CONVENTION SECTION

132nd Annual Convention
Indiana State Medical Association
October 23-26, 1981
Sheraton West Hotel—Indianapolis

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*Traditionally, this portion of the September issue has contained somewhat more detail than you will find this year. In an effort to reduce production costs, certain duplications are being avoided.

Everything required by the ISMA Bylaws appears in the *Delegates Handbook* (all convention participants will be given one this year) and in the December issue, which traditionally features the post-convention wrap-up.

So if you are looking for any of the following items, you will find them at the convention, either in the

Delegates Handbook or in special handouts that will be available there:

- Complete schedule of events;
- Roster, House of Delegates;
- Reports of officers, commissions and committees;
- Reports not received in time to meet printing deadlines for this issue of THE JOURNAL;
- Pictures of guest speakers, ISMA alternate trustees and AMA delegates.

Official Call to the House of Delegates

The next annual session of the Indiana State Medical Association will be held at the Sheraton West Hotel, Indianapolis, Indiana, Oct. 23, 24, 25 and 26, 1981.

The House of Delegates will be constituted as follows:

Marion County, 27 delegates; Lake County, 11 delegates; Allen County and Vanderburgh County Societies, each 7 delegates; St. Joseph County, 5 delegates; Delaware-Blackford and Tippecanoe County Societies, each 4 delegates; Bartholomew-Brown, Owen-Monroe, Vigo and Wayne-Union County Societies, each 3 delegates;

Daviess-Martin, Dearborn-Ohio, Elkhart, Fayette-Franklin, Fountain-Warren, Grant, Harrison-Crawford, Howard, Jefferson-Switzerland, LaPorte, Madison, Parke-Vermillion and Porter County Societies, each 2 delegates; the other 57 county societies, each 1 delegate;

14 trustees and the ex-presidents—namely, M.C. Topping, Kenneth L. Olson, Guy A. Owsley, Maurice E. Glock, Donald E. Wood, Joseph M. Black, Eugene S. Rifner, Patrick J. V. Corcoran, Lowell H. Steen, Malcolm O. Scamahorn, Peter R. Petrich, James H. Gosman, Joe Dukes, Gilbert M. Wilhelmus, Vincent J. Santare, John W. Beeler, Eli Goodman and Arvine G. Popplewell;

The Student Council, I.U. School of Medicine, 1 delegate. The delegate or designated alternate delegate elected by respective section shall also be a member without power to vote.

The following shall be ex officio members: the president, president-elect, executive director, treasurer, assistant treasurer, speaker, vice-speaker and delegates to the American Medical Association, all without power to vote, except in the case of a tie vote, when the speaker shall cast the deciding vote.

All delegates must present their credentials card certified by their county medical society before being seated as a delegate. No delegate will be seated without proper certification.

The House of Delegates will convene promptly at 7 p.m., EST, Friday, Oct. 23, in the Sheraton West Hotel, Indianapolis. The final meeting of the House of Delegates will convene at 9 a.m., Monday, Oct. 26, in the Sheraton West Hotel.

The order of business will be as follows:

1. Call to order by the speaker.
2. Invocation.
3. Roll call and seating of qualified delegates.
4. Announcements from the chair.
5. Tribute to members of the Indiana State Medical Association who have died since the 1980 session.
6. Reading of minutes of previous meetings.
7. Introduction of guests.
8. Journalism Awards.
9. President's address.
10. President-elect's address.
11. Appointment of Reference Committees and assignment of meeting rooms.
12. Unfinished business.
13. Report of president of the ISMA Auxiliary.
14. Report of AMA trustee.
15. Report of the Student Council of the Indiana University School of Medicine.
16. Report of executive director.
17. Report of treasurer.
18. Report of chairman of the Board.
19. Report of trustees.
20. Report of THE JOURNAL editor.
21. Report of AMA delegates.
22. Report of ISMA's Jail Project Advisory Committee.
23. Report of Ad Hoc Committee on Immunization.
24. Report on I-MEDIC
25. Report of Indiana Physicians Life Insurance Co.
26. Reports of committees and commissions.

Committees:

- (1) Executive
- (2) Grievance
- (3) Future Planning
- (4) Medico-Legal
- (5) Negotiations
- (6) Medical Education Fund

Commissions:

- (1) Constitution and Bylaws
- (2) Convention Arrangements
- (3) Legislation
- (4) Public Relations
- (5) Medical Education
- (6) Medical Services
- (7) Physician Impairment

27. Reading of communications.
28. Reading of memorials (if any).
29. Report from the speaker.
30. New Business:
 - (1) Matters referred by Board of Trustees.
 - (2) Matters referred by Executive Committee.
 - (3) Resolutions.
31. Selection of city for 1986 meeting
1982-Indianapolis-October 15-18
1983-Evansville-October 15-19
1984-Indianapolis-October 19-22
1985-South Bend-October 11-14

The election of officers will be the first order of business at the final meeting of the House of Delegates. In addition to the regular officers, the terms of the following AMA delegates and alternates expire Dec. 31, 1981 and their successors must be elected at the session: Delegates to the American Medical Association to succeed Patrick J.V. Corcoran, Evansville, and Peter R. Petrich, Attica; alternate delegates to succeed Thomas C. Tyrrell, Hammond, and Marvin E. Priddy, Fort Wayne.

Delegates from the Second, Fifth, Seventh, Eighth and Eleventh Districts are reminded that the terms of their trustees will expire Oct. 26, 1981, and new trustees should be elected to succeed the following:

Second: Harold M. Manifold, Bloomington
Fifth: Paul Siebenmorgen, Terre Haute
Seventh: John G. Pantzer, Indianapolis
Eighth: Jack M. Walker, Muncie
Eleventh: Herbert C. Khalouf, Marion

Some of these elections may already have been held but they should be reported to the House of Delegates at this session for confirmation.

Donald F. Foy
Executive Director

Reference Committees

REFERENCE COMMITTEE NO. 1:

Reports of Officers

Richard Schaphorst, M.D., Mishawaka; Chairman
(St. Joseph County—District 13) FP
Max N. Hoffman, M.D., Covington; Co-Chairman
(Fountain County—District 9) FP
James Peters, M.D., Shelbyville
(Shelby County—District 6) FP
Joseph W. Young, M.D., Franklin
(Johnson County—District 7) FP
Wm. Van Ness, II, M.D., Alexandria
(Madison County—District 8) FP
Eric Schultz, M.D., Bedford
(Lawrence County—District 3) FP

REFERENCE COMMITTEE NO. 2:

Constitution and Bylaws

Kenneth Ahler, M.D., Rensselaer; Chairman
(Jasper County—District 9) FP
Frank Sturdevant, M.D., Valparaiso; Co-Chairman
(Porter County—District 10) IM
William Kerrigan, M.D., Connersville
(Fayette County—District 6) AN
William L. Streeker, M.D., Terre Haute
(Vigo County—District 5) AN
Garry Bolinger, M.D., Indianapolis
(Marion County—District 7) PTH

REFERENCE COMMITTEE NO. 3:

Legislative

Adrian Lanning, M.D., Noblesville; Chairman
(Hamilton County—District 9) FP
Fred Dahling, M.D., New Haven; Co-Chairman
(Allen County—District 12) FP
George Lewis, M.D., Bloomington
(Owen County—District 2) IM
Donald Kerner, M.D., Indianapolis
(Marion County—District 7) FP
Willard Krabill, M.D., Goshen
(Elkhart County—District 13) PH
Larry Cole, M.D., Yorktown
(Delaware County—District 8) FP

REFERENCE COMMITTEE NO. 4:

Medical Education and Insurance

Lee Trautenberg, M.D., Munster; Chairman
(Lake County—District 10) OPH
A. Alan Fischer, M.D., Indianapolis; Co-Chairman
(Marion County—District 7) FP
Alfred Cox, M.D., South Bend
(St. Joseph County—District 13) FP
Donald Dean Cofield, M.D., Bloomington
(Owen County—District 2) OPH
Jack Higgins, M.D., Kokomo
(Howard County—District 11) FP
Charles Hachmeister, M.D., Evansville
(Vanderburgh County—District 1) FP

REFERENCE COMMITTEE NO. 5:

Miscellaneous

Helen Geyer Czenkusch, M.D., Speedway; Chairman
(Marion County—District 7) PD
Bernard Kemker, M.D., Jasper; Co-Chairman
(DuBois County—District 3) GS
R. Wyatt Weaver, M.D., Angola
(Stueben County—District 12) FP
Tom Cartwright, M.S., Indianapolis
(Student Council IU Med School)
Robert Forste, M.D., Columbus
(Brown County—District 4) ORS
Glen McClure, M.D., Sullivan
(Sullivan County—District 2) GS

REFERENCE COMMITTEE NO. 6:

AMA Matters

Robert Seibel, M.D., Nashville; Chairman
(Brown County—District 4) FP
Charles Egnatz, M.D., Schererville; Co-Chairman
(Lake County—District 10) FP
Gilbert Wilhelmus, M.D., Evansville
(Vanderburgh County—District 1) FP
Marvin Priddy, M.D., Fort Wayne
(Allen County—District 12) FP
Richard Glendening, M.D., Logansport
(Cass County—District 11) FP
Russell Judd, M.D., Indianapolis
(Marion County—District 7) U

CREDENTIALS COMMITTEE

Robert Brown, M.D.
Loren Martin, M.D.
Raymond H. Burnikel, M.D.
G. Beach Gattman, M.D.
Vincent Santare, M.D.
George Underwood, M.D.—chief teller

Resolutions, representing needs and concerns of Indiana physicians, will be discussed Saturday morning, Oct. 24, from 8 until 12 noon. Resolutions are listed on Pages 616 and 617.

Dr. Lawrence Allen, speaker of the ISMA House of Delegates, urges all ISMA members to attend and participate in these important discussions, which ultimately result in statewide medical policy.

THE INDIANA STATE MEDICAL ASSOCIATION

1981 Annual Meeting—Oct. 23-26

OFFICERS FOR 1980-1981

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Speaker of the House—Lawrence E. Allen, 2009 Brown St., Anderson 46016

Vice Speaker—Shirley T. Khalouf, 1204 Overlook Dr., Marion 46952

Executive Director—Mr. Donald F. Foy

TRUSTEES

District	Term Expires
1—John A. Bizal, Evansville	Oct. 1983
2—Harold M. Manifold, Bloomington	Oct. 1981
3—Richard G. Huber, Bedford	Oct. 1982
4—Mark M. Bevers, Seymour	Oct. 1983
5—Paul Siebenmorgen, Terre Haute	Oct. 1981
6—Davis W. Ellis, Rushville	Oct. 1982
7—Donald C. McCallum, Indianapolis	Oct. 1983
7—John G. Pantzer, Indianapolis	Oct. 1981
8—Jack M. Walker, Muncie	Oct. 1981
9—John A. Knote, Lafayette (Chairman)	Oct. 1982
10—Charles D. Egnatz, Shererville	Oct. 1983
11—Herbert C. Khalouf, Marion	Oct. 1981
12—Michael O. Mellinger, LaGrange	Oct. 1982
13—Donald S. Chamberlain, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gourieux, Evansville	Oct. 1982
2—Ralph W. Stewart, Vincennes	Oct. 1983
3—Eli Hallal, New Albany	Oct. 1983
4—William E. Cooper, Columbus	Oct. 1982
5—Benny Ko, Terre Haute	Oct. 1982
6—Dan W. Hibner, Richmond	Oct. 1981
7—John D. MacDougall, Beech Grove	Oct. 1982
7—H. Marshall Trusler, Indianapolis	Oct. 1982
8—Richard L. Reedy, Yorktown	Oct. 1982
9—Max N. Hoffman, Covington	Oct. 1983
10—Walfred A. Nelson, Gary	Oct. 1982
11—Edward L. Langston, Flora	Oct. 1983
12—	Oct. 1983
13—John W. Luce, Michigan City	Oct. 1982

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Secretary—Lee H. Trachtenberg, Munster

Section on Nuclear Medicine

President—Henry N. Wellman, Indianapolis

Secy-Treasurer—Miguel B. Dizon, Indpls

DELEGATES TO THE AMA

Terms expire December 31, 1982:

Delegates: George T. Lukemeyer, Indianapolis; Malcolm O. Scamhorn, Pittsboro; Everett E. Bickers, Floyds Knobs.

Alternates: Robert M. Seibel, Nashville; Lloyd L. Hill, Peru; Gilbert M. Wilhelmus, Evansville.

Terms expire December 31, 1981:

Delegates: Patrick J. V. Corcoran, Evansville; Peter R. Petrich, Attica.

Alternates: Thomas C. Tyrrell, Hammond; Marvin E. Priddy, Fort Wayne.

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District	President	Secretary	Place, Date of Meeting
1.	John D. Pulcini, Evansville	Kent McKinney, Newburgh	June 17, 1982, Evansville
2.	Thomas E. Bailey, Linton	Betty J. Dukes, Dugger	
3.	Wallace D. Johnson, Bedford	Peter H. Livingston, Bedford	
4.	Ricardo C. Domingo, Greensburg	Robert P. Acher, Greensburg	
5.	Franklin J. Swaim, Rockville	Daniel J. Dwyer, Rockville	
6.	William F. Kerrigan, Connersville	Wylie G. McGlothlin, New Castle	1982, New Castle
7.	Warren L. Gray, Martinsville	M. O. Scamahorn, Pittsboro	
8.	Caral R. Chambers, Union City	Susan K. Pyle, Union City	June 23, 1982, Muncie
9.	Lowell R. Stephens, Covington	Theodore C. Persan, Veedersburg	June 24, 1982, Attica
10.	Lee H. Trachtenberg, Munster	Barron M. F. Palmer, Hamman	
11.	Richard L. Glendening, Logansport	Fred C. Poehler, Wabash	Sept. 16, 1981, Logansport
12.	Linus J. Minick, Churubusco	Antonio B. Donesa, Fort Wayne	Sept. 17, 1981, Fort Wayne
13.	Michael J. Quinn, South Bend	G. Richard Green, South Bend	Sept. 9, 1981, South Bend

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Medical Convention	Elected	Served		Elected	Served
*Livingston Dunlop, Indionopolis	1849	1849	*A. C. Kimberlin, Indionopolis	1912	1913
Medical Society			*John P. Solb, Jospers	1913	1914
*William T. S. Cornett, Versoilles	1849	1850	*Frank B. Wynn, Indionopolis	1914	1915
*Ashohel Clopp, New Albony	1850	1851	*George F. Keiper, Lofoyette	1915	1916
*George W. Meors, Indionopolis	1851	1852	*John H. Oliver, Indionopolis	1916	1917
*Jeremiah H. Brower, Lawrenceburg	1852	1853	*Joseph Rilus Eastmon, Indionopolis	1917	1918
*Elizur H. Deming, Lofoyette	1853	1854	*William H. Stemm, North Vernon	1918	1919
*Modison J. Broy, Evonsville	1854	1855	*Charles H. McCully, Logonsport	1919	1920
*William Lomox, Morion	1855	1856	*David Ross, Indionopolis	1920	1921
*Daniel Meeker, LoPorte	1856	1857	*William R. Davidson, Evonsville	1921	1922
*Tolbot Bullard, Indionopolis	1857	1858	*Charles H. Good, Huntington	1922	1923
*Nothom Johnson, Cambridge City	1858	1859	*Samuel E. Eorp, Indionopolis	1923	1924
*David Hutchinson, Mooresville	1859	1860	*Eldridge M. Shonklin, Hommond	1924	1925
*Benjamin S. Woodworth, Ft. Woyne	1860	1861	Medical Association		
*Theophilus Porvin, Indionopolis	1861	1862	*Charles N. Combs, Terre Houte	1925	1926
*James F. Hibberd, Richmond	1862	1863	*Frank W. Cregor, Indionopolis	1926	1927
*John Sloan, New Albony	1863	....	*George R. Daniels, Morion	1926	1928
*John Moffett (octing), Rushville	1863	1864	*Charles E. Gillespie, Seymour	1927	1929
*Samuel L. Linton, Columbus	1864	....	*Angus C. McDonold, Worsow	1928	1930
*Wilson Lockhort (octing), Donville	1864	1865	*Alois B. Grohom, Indionopolis	1929	1931
*Myron H. Hording, Lawrenceburg	1865	1866	*Franklin S. Crockett, Lofoyette	1930	1932
*Vierling Kersey, Richmond	1866	1867	*Joseph H. Weinstein, Terre Houte	1931	1933
*John S. Bobbs, Indionopolis	1867	1868	*Everett E. Podgett, Indionopolis	1932	1934
*Nothoniell Field, Jeffersonville	1868	1869	*Wolter J. Leoch, New Albony	1933	1935
*George Sutton, Aurora	1869	1870	*Roscoe L. Sensenich, South Bend	1934	1936
*Robert N. Todd, Indionopolis	1870	1871	*Edmund D. Clork, Indionopolis	1935	1937
*Henry P. Ayres, Ft. Woyne	1871	1872	*Hermom M. Boker, Evonsville	1936	1938
*Joel Pennington, Milton	1872	1873	*Edmund M. Von Buskirk, Ft. Woyne	1937	1939
*Isooc Cosselberry, Evonsville	1873	....	*Karl R. Ruddell, Indionopolis	1938	1940
*Wilson Hobbs (octing), Knightstown	1873	1874	*Albert M. Mitchell, Terre Houte	1939	1941
*Richard E. Houghton, Richmond	1874	1875	*Moynord A. Austin, Anderson	1940	1942
*John H. Helm, Peru	1875	1876	*Carl H. McCoskey, Indionopolis	1941	1943
*Samuel S. Boyd, Dublin	1876	1877	*Jacob T. Oliphont, Formerburg	1942	1944
*Luther D. Wotermom, Indionopolis	1877	1878	*Nelson K. Forster, Hommond	1943	1945
*Louis Humphreys, South Bend	1878	....	*Jesse E. Ferrell, Fortville	1944	1946
*Benj. Newlond (octing), Bedford (v.p.)	1878	1879	*Floyd T. Romberger, Lofoyette	1945	1947
*Jacob R. Weist, Richmond	1879	1880	*Cleon A. Nofe, Indionopolis	1946	1948
*Thomas B. Horvey, Indionopolis	1880	1881	*Augustus P. Houss, New Albony	1947	1949
*Morsholl Sexton, Rushville	1881	1882	*C. S. Block, Warren	1948	1950
*William H. Bell, Logonsport	1882	1883	*Alfred Ellison, South Bend	1949	1951
*Samuel E. Mumford, Princeton	1883	1884	*J. William Wright, Indionopolis	1950	1952
*James H. Woodburn, Indionopolis	1884	1885	*Paul D. Crimm, Evonsville	1951	1953
*James S. Gregg, Ft. Woyne	1885	1886	*Wm. Horry Howord, Hommond	1952	1954
*General W. H. Kemper, Muncie	1886	1887	*Wolter L. Portteus, Franklin	1953	1955
*Samuel H. Chorlton, Seymour	1887	1888	*Wolter U. Kennedy, New Costle	1954	1956
*William H. Wishord, Indionopolis	1888	1889	*Elton R. Clorke, Kokomo	1955	1957
*James D. Gotch, Lawrenceburg	1889	1890	M. C. Topping, Terre Houte	1956	1958
*Gonsolvo C. Smythe, Greencastle	1890	1891	*Kenneth L. Olson, South Bend	1957	1959
*Edwin Wolker, Evonsville	1891	1892	*Earl W. Mericle, Indionopolis	1958	1960
*George F. Beasley, Lofoyette	1892	1893	Guy A. Owsley, Hortford City	1959	1961
*Charles A. Dougherty, South Bend	1893	1894	*Horry R. Stimson, Gory	1960	1962
*Elijoh S. Elder, Indionopolis	1894	....	Maurice E. Glock, Fort Woyne	1961	1963
*Charles S. Bond (octing), Richmond	1894	1895	Donald E. Wood, Indionopolis	1962	1964
*Miles F. Porter, Ft. Woyne	1895	1896	*Joseph M. Block, Seymour	1963	1965
*James H. Ford, Wobosh	1896	1897	*Kenneth O. Neumann, Lofoyette	1964	1966
*William N. Wishord, Indionopolis	1897	1898	Eugene S. Rifner, Von Buren	1965	1967
*John C. Sexton, Rushville	1898	1899	*G. O. Lorson, LoPorte	1966	1968
*Wolker Schell, Terre Houte	1899	1900	Patrick J. V. Corcoron, Evonsville	1967	1969
*George W. McCoskey, Ft. Woyne	1900	1901	Lowell H. Steen, Hommond	1968	1970
*Alembert W. Broyton, Indionopolis	1901	1902	Molcolm O. Scomohorn, Pittsboro	1969	1971
*John B. Berteling, South Bend	1902	1903	Peter R. Petrich, Attico	1970	1972
*Jonos Stewart, Anderson	1903	1904	James H. Gosmon, Indionopolis	1971	1973
*George T. McCoy, Columbus	1904	1905	Joe Dukes, Dugger	1972	1974
*George H. Gront, Richmond	1905	1906	Gilbert M. Wilhelmus, Evonsville	1973	1975
*George J. Cook, Indionopolis	1906	1907	Vincent J. Sontore, Munster	1974	1976
*David C. Peyton, Jeffersonville	1907	1908	John W. Beeler, Indionopolis	1975	1977
*George D. Kohlo, French Lick	1908	1909	Eli Goodmon, Chorlestown	1976	1978
*Thomas C. Kennedy, Shelbyville	1909	1910	*James A. Horshmon, Kokomo	1977	1978
*Frederick C. Heoth, Indionopolis	1910	1911	Arvine G. Popplewell, Indionopolis	1978	1980
*William F. Howot, Hommond	1911	1912	Alvin J. Holey, Cormel	1979	1981

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1980-1981

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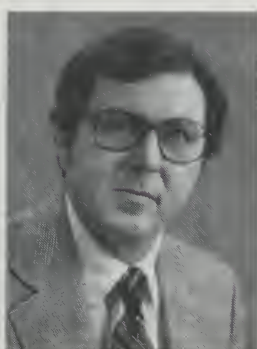
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Vice-Speaker
Marion



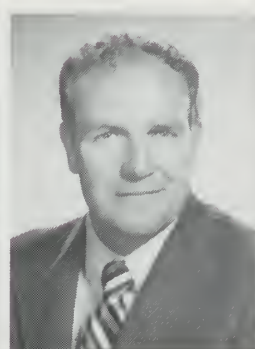
Howard C. Jackson, M.D.
Executive Committee
Madison



Mrs. Marianna Irwin
President, Auxiliary
Indianapolis



Frank B. Ramsey, M.D.
Editor, The Journal
Indianapolis



Donald F. Foy
Executive Director
Indianapolis



Kenneth W. Bush
Asst. Exec. Director
Indianapolis

Board of Trustees



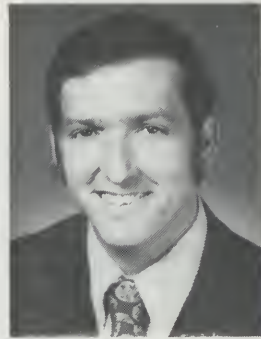
John A. Bizal, M.D.
Evansville
First District



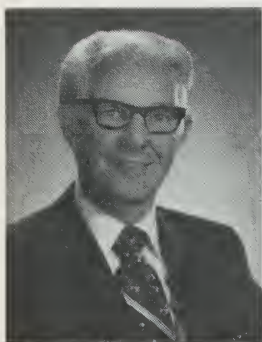
Harold M. Manifold,
M.D.
Bloomington
Second District



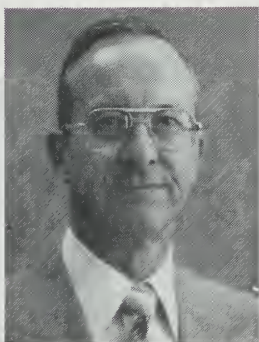
Richard G. Huber, M.D.
Bedford
Third District



Mark M. Bevers, M.D.
Seymour
Fourth District



Paul Siebenmorgen, M.D.
Terre Haute
Fifth District



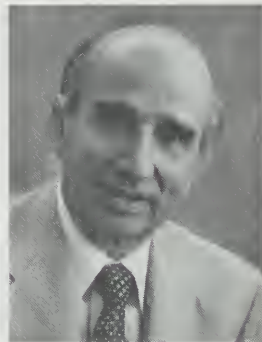
Davis W. Ellis, M.D.
Rushville
Sixth District



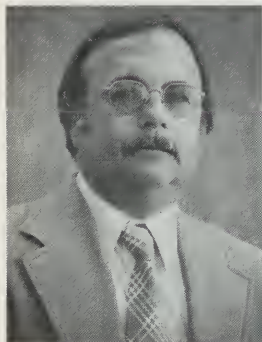
Donald C. McCallum,
M.D.
Indianapolis
Seventh District



John G. Pantzer, M.D.
Indianapolis
Seventh District



Jack M. Walker, M.D.
Muncie
Eighth District



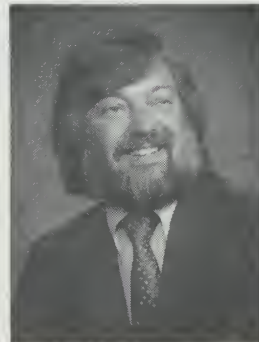
John A. Knotte, M.D.
Lafayette
Ninth District



Charles D. Egnatz, M.D.
Shererville
Tenth District



Herbert C. Khalouf, M.D.
Marion
Eleventh District

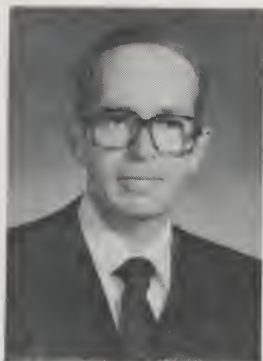


Michael O. Mellinger,
M.D.
LaGrange
Twelfth District



Donald S. Chamberlain,
M.D.
South Bend
Thirteenth District

Schedule of Events (Abridged)



GARRY L. BOLINGER, M.D.
Indianapolis
Chairman
Convention Arrangements

132nd Annual Convention
Sheraton West Hotel
Indianapolis

FRIDAY, October 23

EST

- 10 a.m. Registration opens
- 11:30 a.m. Board of Trustees Luncheon/Meeting
- 3-5 p.m. Student Reception/Meeting
- 7 p.m. House of Delegates Meeting

SATURDAY, October 24

EST

- 8 a.m.- Reference Committee Meetings
- Noon
- 9:30 a.m.- General Scientific Meetings
- 5 p.m.
- 10:30 a.m.- Special Reference Committee on AMA Affairs
- Noon
- Noon IMPAC Luncheon
- Noon Editorial Board Luncheon/Meeting
- 7 p.m. Board of Trustees Formal Dinner

SUNDAY, October 25

EST

- 7:30 a.m. Board of Trustees Breakfast Meeting
- 9 a.m.- ISMA Section Meetings and Specialty Society Meetings
- 5 p.m.
- 12:30 p.m. Past Presidents Luncheon
- 1:30 p.m. Small County Delegates Meeting
- 6 p.m. Fifty Year Club Reception
- 6:30 p.m. President's Reception
- 7:30 p.m. President's Dinner

MONDAY, October 26

EST

- 7:30 a.m. Board of Trustees Breakfast Meeting
- 9 a.m. Final House of Delegates Meeting
- 2 p.m. Board of Trustees Organizational Meeting and Executive Committee Meeting

AUXILIARY PROGRAM, October 23-25

See "Auxiliary Report" on Page 554



Peter Hackes,
Washington
Correspondent,
To Be Guest Speaker
at IMPAC Luncheon

Veteran Washington Correspondent Peter Hackes of NBC News will be the guest speaker at the IMPAC luncheon, scheduled to begin at noon, Saturday, Oct. 24, during the annual convention.

Hackes has reported on a long series of history-making events in the past three decades. He calls Three Mile Island the toughest story he's ever been asked to cover. But he's also been on the scene for such headlines as the Watergate coverup trial, the resignation of President Nixon, the Cuban missile crisis of 1962, various Washington demonstrations, the historic Egyptian-Israeli peace treaty, the re-entry of Skylab, and many others.

The list of Hackes-reported news events includes the political campaign activities of nine presidential and vice-presidential candidates; six presidential election nights; six inaugurations; and three First Family weddings.

He has been on the scene at 13 national political conventions (six as anchorman for the NBC Radio Network). He has reported such events as the 1956 Hungarian revolt airlift; the 1960 Chilean earthquake, which killed 20,000 people; "Resurrection City" in 1968; the disturbances during the 1968 Democratic convention in Chicago; and he was at the Ambassador Hotel in Los Angeles the night Robert Kennedy was assassinated.

His daily newsbeat takes Correspondent Hackes to Senate and House debates, events at the State Department and to NASA briefings. He covers many other areas including energy, the environment, science, transportation, consumer affairs and matters that affect the business and labor communities.

Hackes, who joined NBC in 1955, has appeared on "Meet the Press," many news specials, the "Today Show," "NBC Nightly News," and other NBC news programs. He has been a regular for many years on NBC Radio's hourly news broadcasts and reported extensively on NBC's "Monitor" program. He was anchorman for the NBC Radio "World News Roundup" for four years and has anchored many programs in the Peabody Award-winning "Second Sunday" series.

Resolutions

Resolution 81-1

Introduced by: Fountain-Warren County Medical Society
Subject: Executive Committee Structure
Referred to: Reference Committee

Whereas, The Executive Committee of ISMA traditionally has been the finance committee of the Association; and

Whereas, Its additional duty was that of a housekeeping committee; and

Whereas, Over the past several years various changes to the bylaws relating to the Executive Committee have been made resulting in unusual powers for the committee, including policy-making for the Association between meetings of the Board of Trustees; and

Whereas, All of the preceding indicates a pressing need for a revision of the bylaws dealing with the Executive Committee; now, therefore be it

Resolved, That Chapter VIII, Section I be amended to read as follows: "The Board of Trustees at its organization meeting, by resolution adopted by a majority of the trustees in office, shall designate four trustees who, with the chairman of the board, will constitute the Executive Committee. The chairman of the board will be designate chairman of the Executive Committee. Members will serve until the next organization meeting of the board and until their successors are elected and qualified. The committee shall have such powers and duties as may be defined from time to time by the Board of Trustees."

Resolution 81-2

Introduced by: Fountain-Warren County Medical Society
Subject: Rescission of Policy Dealing With Major Offices
Referred to: Reference Committee

Whereas, The House of Delegates of the Indiana State Medical Association adopted a policy prohibiting anyone from holding more than one major office; and

Whereas, No apparent or tangible beneficial result has ensued because of adopting this policy; and

Whereas, The amount of work for physicians willing to participate in ISMA affairs is expanding as rapidly as the activity and scope of the Association itself; now, therefore be it

Resolved, That the House of Delegates of the Indiana State Medical Association rescind its policy dealing with major offices.

Resolution 81-3

Introduced by: Owen-Monroe County Medical Society
Subject: Use of Human Chorionic Gonadotropin by Weight Reduction Clinics
Referred to: Reference Committee

Whereas, It has come to the attention of the Owen-Monroe County Medical Society that certain businesses have been established in Indiana which are advertised as weight clinics; and

Whereas, Among these, some advocate the use of Human Chorionic Gonadotropin (HCG) in weight reduction; and

Whereas, HCG has never been shown to be effective in weight control; and

Whereas, The manufacturer states that HCG has no known effect on fat mobilization, appetite or sense of hunger, or body fat distribution; now, therefore be it

Resolved, That the Indiana State Medical Association condemn the use of HCG for the purpose of weight reduction or for any purpose other than that stated in a current edition of the *Physicians' Desk Reference*.

Resolution 81-4

Introduced by: ISMA Commission on Constitution and Bylaws
Subject: Pro-Rated Monthly Dues for New Members
Referred to: Reference Committee

Whereas, ISMA bylaws currently require new members to pay dues for either 12 months or six months; and

Whereas, New members are therefore frequently required to pay for months when they were not members; and

Whereas, Many new members delay joining ISMA until such time as their dues match the number of months remaining in the membership year; now, therefore be it

Resolved, That for new members joining ISMA, dues will be calculated on a pro-rated monthly basis.

Resolution 81-5

Introduced by: Commission on Constitution and Bylaws
Subject: Delinquent Dues of Major Office Holders
Referred to: Reference Committee

Whereas, Confusion has arisen in the past regarding the legal authority of major office holders to continue their responsibilities without having fully paid ISMA annual dues; now, therefore be it

Resolved, That any member who fails to

pay the appropriate annual dues to ISMA by January 15 will be considered delinquent; and be it further

Resolved, That any delinquent member who is a major office holder in ISMA not be allowed to vote in that capacity until annual dues are paid in full; and be it further

Resolved, That any major office holder, as defined in Chapter VI, Section 1 of the Bylaws, whose dues are delinquent be personally notified of this delinquency by the Executive Director of the Indiana State Medical Association; and be it further

Resolved, That the Board of Trustees be given the power to declare such members as suspended after April 30, at which time such members shall sacrifice all rights and privileges of this Association until said annual dues are received in full by the Indiana State Medical Association.

Resolution 81-6

Introduced by: Huntington County Medical Society
Subject: Repeal of PSRO
Referred to: Reference Committee

Whereas, It has become apparent that PSRO legislation was introduced and enacted primarily as a "cost control" mechanism; and

Whereas, On August 25, 1980, hearings were held in the U.S. House of Representatives, at which time the Office of Management and Budget testified that after eight years the PSRO program was spending \$1 to save 50c; and

Whereas, The American Medical Association has joined with other medical organizations in asking for repeal of PSRO; now, therefore be it

Resolved, That the Indiana State Medical Association petition, urge and request Senators Dole and Durenberger, the Republican majority, and all members of the Senate Finance Subcommittee on Health, including Senator Long, to support President Reagan's Economic Recovery Program and to support the immediate repeal of the PSRO and U.R. programs in the forthcoming Senate Committee on Finance Budget Report; and be it further

Resolved, That the Indiana State Medical Association send a copy of this resolution, if adopted, to all state medical associations throughout the country, President Reagan, OMB Director Stockman, Vice President Bush, HHS Secretary Schweiker and our state Congressional delegation.

Resolutions

Resolution 81-7

Introduced by: Dubois County Medical Society
Subject: Change of ISMA Districts by Dubois County
Referred to: Reference Committee

Whereas, Members of the Dubois County Medical Society of the Third District continually make the majority of their medical and surgical referrals and consultations to Evansville in the First District due to its close proximity; and

Whereas, Members of the Dubois County Medical Society have little contact and/or interaction with the major centers of the Third District, i.e., Clarksville and Jeffersonville; and

Whereas, Dubois County adjoins the eastern boundary of the First District; now, therefore be it

Resolved, That the Indiana State Medical Association deem it appropriate that Dubois County be transferred from the Third to the First District.

Resolution 81-8

Presented by: Commission on Constitution and Bylaws
Subject: Alternate Trustee Vacancy
Referred to: Reference Committee

Whereas, It is the intent that each Medical District be represented by a Trustee and an Alternate Trustee; and

Whereas, In the event of a vacancy occurring from any cause, except expiration of the term of office in the office of any District Trustee, the duly elected Alternate Trustee from the same district shall succeed to the office of the Trustee in that District for the unexpired term of said Trustee; now, therefore be it

Resolved, That in the event the Alternate Trustee succeeds the Trustee for any cause, with the exception of expiration of term of office, that the President of the District Medical Society assume the office of Alternate Trustee until such time as a new Alternate Trustee is elected.

Resolution 81-9

Presented by: Commission on Constitution and Bylaws
Subject: Oath of Office, Delegate/Alternate Delegate
Referred to: Reference Committee

Whereas, it is desired that anyone working for the benefit of organized medicine give dutiful thought to the obligation encumbered, be it

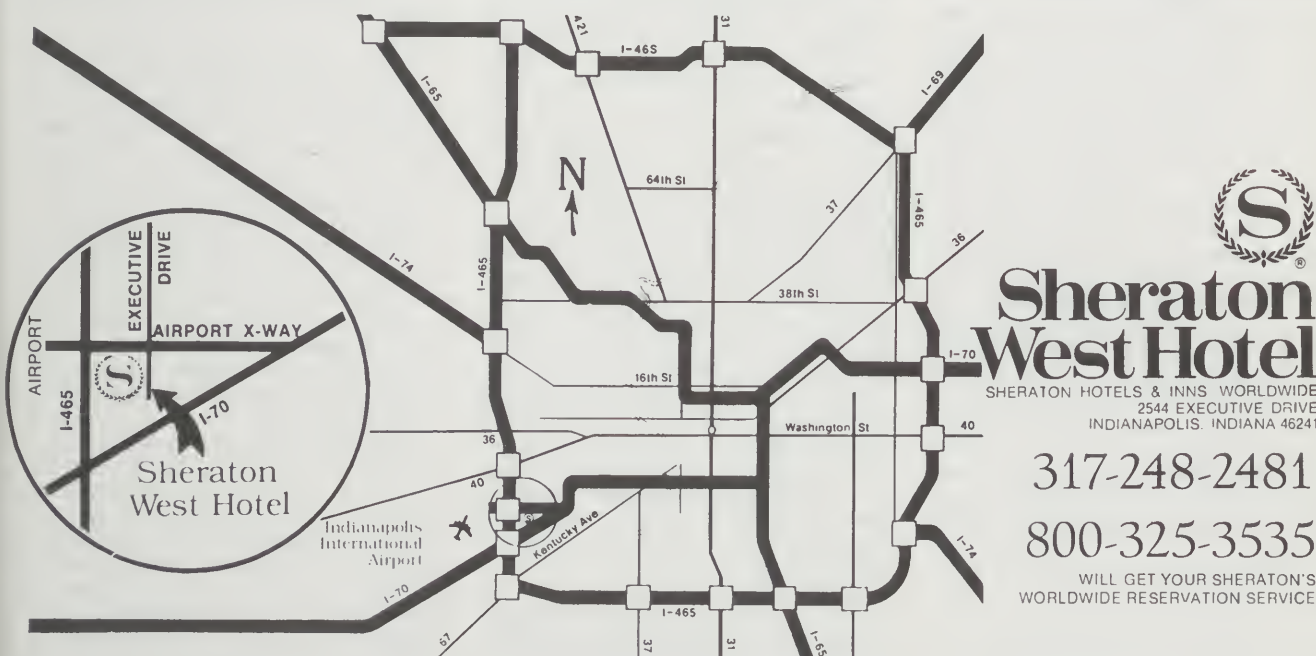
Resolved, That it be recommended to County Medical Society Presidents to administer the following Oath of Office to Delegate(s) and Alternate Delegate(s) when they are elected:

"I, . . . , solemnly swear that I shall carry out to the best of my ability, the duties of (Delegate/Alternate Delegate) of the Indiana State Medical Association to which I have been elected.

"I shall strive constantly to maintain the ethics of the medical profession and to promote the public health and welfare. I shall dedicate myself and my office to improving the health standards of the American people and to do the task of bringing increasingly improved medical care within the reach of every citizen.

"I shall uphold the Constitution of the United States of America and of the State of Indiana, the Constitution and Bylaws of the American Medical Association and the Constitution and Bylaws of the Indiana State Medical Association at all times.

"I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans. To these duties and obligations, I pledge myself, so help me God."



Report of Executive Director

There is good news with respect to ISMA's financial picture in that the budget for fiscal year 1982 (October 1, 1981—September 30, 1982) will be in balance and we are even projecting an excess of income over expenses. Just in case you have forgotten, the last ISMA dues increase was back in 1975. Not only is ISMA's dues the lowest among the seven surrounding midwestern states, but ISMA is one of only two state societies in the country that has not had a dues increase since 1975. What makes all of this significant is the fact that the cumulative rate of inflation since 1975 has been 67%.

This optimistic forecast is largely due to the following factors:

1. Careful monitoring of expenses by the leadership and staff of the Association which has resulted in underspending the budget.

2. The design and implementation of a new quarterly and monthly financial reporting system by ISMA staff members, Mike Huntley and John Wilson.

3. The development of a new budgetary process and format by Mr. Huntley and Mr. Wilson which encourages input from and involves the entire staff.

4. High interest rates which are responsible for investment income exceeding budget projections.

5. The addition of John Wilson to the staff as our new Accountant-Bookkeeper, replacing Irene Reilly who retired.

6. The streamlining and further refinement of ISMA's functional accounting system.

7. Consistent increases in ISMA membership during past several years. As of June 30, 1981, ISMA total membership was 5514 reflecting a net gain of 134 members over 1980.

The Future Planning Committee and staff have been attempting to analyze the environment within which the ISMA and other medical organizations will exist in the near future. The purpose of such an analysis is to identify significant trends and issues that do not normally surface through the routine policymaking process, but which the ISMA should take into consideration as it plans for the future.

According to John Naisbitt, Senior Vice President, Yankelovich, Skelly and White, Publisher of *The Trend Report*, there are 10 important trends emerging in the United States that will have a profound effect on every segment of our society. In attempting to develop a viable strategic plan for ISMA, we must examine the external environment in which medicine will function.

1. The United States is rapidly shifting from a mass industrial society to an information society, and the final impact will be more profound than the nineteenth century shift from an agricultural to an industrial society.

2. There is more decentralization than centralization taking place in America for the first time in the nation's history—the power is shifting not only from the President to the Congress, but, less noticed, from the Congress to the states and localities.

3. National political parties today exist in name only; issue politics and referendum politics are replacing party politics; new parties will be formed but they will be local—not national.

4. American society is moving in dual directions of high tech/high touch. The introduction of every new technology is accompanied by a compensatory human response—or the new technology is rejected.

5. Ageism has replaced racism and sexism as the society's major anti-discrimination preoccupation. The recession of concern regarding racism and sexism will last for from 5-10 years.

6. There are the beginnings of a job revolution in America—a basic restructuring of the work environment from top-down to bottom-up.

7. Equal access to capital will be the new rights issue, following earlier claims to equal access to education and health care.

8. Throughout the U.S., notions of "appropriate scale" are reshaping our physical and organizational environment.

9. Issues of corporate governance-involving questions of leaderships of American companies will have an important impact on business in the 1980s.

10. The most important trend in this century is the continuing shift of the U.S. from a representative democracy to a participatory democracy.

According to Naisbitt, things start in Los Angeles, in Tampa, in Hartford, in Wichita, Portland, San Diego, and Denver. We are becoming a very much from-the-bottom-up society.

To illustrate his thesis concerning the trend toward decentralization of our institutions, Naisbitt cites the American Medical Association. He contends that the AMA as an umbrella organization is getting weaker as the groups within it—the pediatricians, the surgeons, etc. are getting stronger. Although we might not be ready to accept this conclusion completely, it does contain an element of truth. Thus it has tremendous implications for us as a state medical association.

Some observers have predicted that the battleground of the 1980s for American medicine will involve control of technology. The ostensible combatants will be the Federal Trade Commission with its continuing assault on the medical profession and the so-called limited licensed practitioners who have been quick and resourceful in seizing upon the restraint of trade issue raised by the FTC for their own advancement. There can be little doubt that giving limited licensed practitioners access to hospital medical staffs and to the technological equipment in hospitals, under the guise of competition, will not only impair quality of care, but is directly counter to efforts to control costs.

Along this same line, the undue emphasis on the machinery of medicine is beginning to propel physicians into certain specialties and lengthening residency training programs. At the same time there are immense pressures

to perform tests, some coming from patients themselves, who have been over-sold on the merits of these procedures, and others arising from physicians' fears of medical malpractice litigation. Faulty reimbursement systems which reward physicians for performing technological procedures, but not for interpreting tests or for counseling or educating patients, are also partly to blame.

The pressures to contain costs will continue to persist. If physicians forcefully argue that they can save the nation money by adding or expanding ambulatory procedures and services, then the third-party payers should get the message and begin to make the necessary reimbursement change.

Reductions in federal expenditures also imply continuing efforts toward cost containment in the health field. While regulation will continue to be one major approach, associations will increasingly be faced with responding to development of the so-called "pro-competition" bills currently being considered.

"Competition" and "consumer choice" are the hot new topics of conversation in Washington's health policy corridors. This is the result of the sweeping Republican victories in the November elections, an urgent requirement to keep the federal budget down, the desire to seek "marketplace" rather than regulatory methods of controlling health care costs, and a near consensus among policymakers that comprehensive national health insurance is not feasible at this time.

A number of pro-competition bills were introduced in the last Congress. Six received serious attention. Hearings were held by the Senate Finance Committee on Senator Durenberger's bill (S.1968) and by the House Ways and Means Health Subcommittee on Representative Ullman's bill (H.R. 5746). None of the bills was reported out of Committee.

So far, three competition bills have been introduced in the 97th Congress. H.R. 850, the Gephardt/Stockman "Health Care Reform Act of 1981," is essentially the same bill they introduced in the last Congress. Gephardt has solicited comments on the bill and intends to revise it. The "Comprehensive Health Care Reform Act." (S.130) is the Schweiker bill from the last Congress, which has been introduced in this Congress by Senator Orrin Hatch (R-Ut). S.433 is Durenberger's "Health Incentive Reform Act of 1981." Representatives James Martin and Jim Jones are also expected to reintroduce, perhaps with some variations, their bills from the last Congress.

Few congressional proponents of the competition idea believe a bill will be enacted soon. On the other hand, "competition" is the only idea floating around in Washington at the moment which seems to have political acceptance. With the strong pressure to reduce public expenditures, "get the government off people's backs," and at the same time "do something" about rapidly escalating health care costs, it is likely to be the only idea to have appeal for some time.

Report of Executive Director

Strong interest in the competitive strategies is certainly assured with so many of the early proponents of competition in key positions: Stockman is now director of OMB; Schweiker serves as secretary of HHS; Durenberger is the new chairman of the Health Subcommittee of Senate Finance; Hatch has become chairman of the Senate Labor and Human Resource Committee; Jones is now chairman of the House Budget Committee; Gibbons and Gephardt remain on the Ways and Means Committee.

The Reagan Administration intends to seek implementation of the general features of the pro-competition model by 1983, although it has not yet developed a specific legislative proposal.

Few national organizations have taken firm positions on the bills. The Federation of American Hospitals has endorsed the competition model, and the American Hospital Association passed a resolution at its recent winter meeting which supports the general features of the pro-competitive proposals. The American Medical Association, however, has recently taken a strong stand in opposition to Gephardt's Bill (H.R. 850) principally because AMA believes the bill would increase regulation of the health care industry without any guarantee of increasing competition.

Most other organizations have chosen a wait-and-see approach. However, one can anticipate strong opposition from most of organized labor because its role in negotiating health benefits would be diminished by the pro-competitive model. Many in the business community will also oppose the competition proposals because they anticipate they would lose control over the purchase and administration of health benefits, an important employee relations function. Business groups also see the potential for increased costs and more complicated administration of health benefit payment resulting from a multiple choice proposal. Finally, self-insuring companies see that some competition proposals could effectively remove, or at least seriously impede, their ability to continue to self-insure.

As a result of growing, general competition for patients, even medical groups will have to become more readily available, staying open on weekends, evening, or whenever a patient comes in the door. As a matter of fact, a number of experts are predicting that physicians who practice full time in hospital emergency rooms will be hit the hardest by the projected physician surplus. As competition for patients heats up, more office-based physicians will be offering evening and weekend hours to attract patients now using the ER for after-hours care.

In general, the increasing supply of physicians relative to the population will have significant impact on medical practice since increased competition is the logical outcome. In recent years, physicians' incomes have declined both in real terms and relative to the income of the general population. This trend can be expected to continue as the sup-

ply of physicians continues to increase. For example, in 1979 there were an additional 25,000 physicians providing patient care services throughout the country over the 1978 level. During this same period, patient volume per physician declined by more than 9%. This decline in patient volume occurs at a time when physicians' fee increases are generally trailing the overall rate of inflation.

As pressures of this sort continue to mount, physicians will seek practice arrangements where more stable patient volumes can be expected. This implies more physicians seeking salaried type arrangements (both hospital and group based) and a continued movement away from the traditional fee-for-service practice, especially solo settings. It is estimated that currently 50,000 practicing U.S. physicians (15%) have already established some affiliation with a prepaid health plan, and this number could reach as many as 125,000 by 1990. In some areas of the country, 75% of practicing physicians are now involved in some sort of prepaid practice arrangement. This trend will be particularly pronounced among younger physicians who will continue to have increasing difficulty in establishing a traditional medical practice. More hospitals are becoming involved in health maintenance organizations. Many hospitals (about a third in Calif.) have some type of arrangement to provide services to members of health maintenance organizations, and at reduced rates.

Some prominent health economists are forecasting mounting pressure for negotiated fee schedules. However, it is believed that they will be more equitable than the current usual-and-customary mechanisms.

Because the supply of physicians has grown enormously relative to the population and will continue to increase, it will eventually have a depressing effect on fees. Any schedules developed will have to be politically viable. That is why they will have to be negotiated rather than dictated by third parties. Moreover, there will have to be agreement among the parties involved that a fee schedule is reasonable.

With regard to demand for physicians' services, the key word will be "more." While *more* services will be demanded overall, it also can be expected that consumers will "shop" *more* carefully and with fewer inhibitions than in the past. They will continue to seek "quick and easy" methods of assessing physicians' qualifications through increased usage of consumer oriented physician directories. Consumers will also increasingly demand *more* "input" into physicians' treatments and hold physicians even *more* accountable for treatment outcomes. The ability to do this, of course, relates directly to the total supply of physicians' services.

As with many other consumer goods, "convenience" of medical care eventually may become more important than real quality. This in turn has implications for the setting (i.e., office versus hospital, solo practice versus multi-specialty group) where services

will be required and delivered, as well as for important changes in the patient-physician relationship.

The predicted movement toward salaried and group practice presents special challenges for organized medicine. Increased efforts will be needed to assure that the benefits of membership in organized medicine are attractive to salaried and group physicians as well as to the solo, fee-for-service physician.

Prospects of certificate-of-need legislation for physicians' offices and negotiated fee schedules for Medicare and Medicaid represent additional intrusions of government in physicians' office practices. This trend, combined with existing incentives for development and operation of HMOs, further implies that any new "wave" of regulation will be most severely felt by the fee-for-service physician.

Thus, while efforts to deregulate the economy in general may be increasing, there is some evidence to suggest that this trend may be slower in reaching health care unless the medical profession and others in the health care sector take the initiative to see that health deregulation is pursued along with the general deregulatory trend. Many new government initiatives, particularly in the area of alternative delivery systems and reimbursement methods, will attempt to impose new regulatory burdens on the health care system and will be aimed at particular groups of physicians. These pressures may very well proliferate in the coming years and will be increasingly administered at the state or local levels.

In the near term, economic conditions suggest a continuation and even an acceleration of prudent fiscal management on the part of all medical associations. The major economic problem for the foreseeable future will continue to be inflationary pressures, and medical societies will have to be careful not to expand programmatic activities beyond reasonable estimates of dues and non-dues revenue sources. It is also likely that, in the near term, non-dues sources of revenue will take on greater importance for many associations than in the past.

In all of the environmental areas considered, perhaps the key factor that emerges is the crucial need for a unified profession and for a coordinated federation approach to problem solving. If organized medicine is to continue its leadership role, it will have to meet its problems and concerns head on. The medical profession will have to be on the leading edge in identifying the crucial issues and responding to them in a responsible fashion. In an age of limited financial and other resources, the medical profession simply cannot afford to have organizations working at cross purposes or duplicating each others' efforts.

Donald F. Foy
Executive Director

Reports of Trustees

Second District

It has been a pleasure to serve as Second District trustee for the last three years. I have found it very interesting and educational. The meetings have sometimes been long, but it is very gratifying to see so many doctors spend hours at meetings with the expressed purpose of improving the practice of medicine both for the doctors and the patients.

The Second District meeting was conducted by Dr. James Beck in Washington, Indiana, with the host being Daviess-Martin County. The meeting was held at the Elks Club in Washington, and Dr. Lowell H. Steen was the featured speaker talking about the AMA and answering questions in regard to the AMA.

At the Second District meeting, Dr. Ralph Stewart was elected trustee for the next three years. Dr. Stewart is from Vincennes and has been the alternate trustee for the past year. Elected as alternate trustee was Dr. Paul Wenzler of Bloomington, who will serve for the next two years in that capacity. Also, at the meeting were Dr. and Mrs. Alvin Haley, Don Foy, Ken Bush and Sara Klein. The next meeting of the Second District Society will be held next year at Linton with the host society being Greene County.

For the past five years I have served on the Board of Directors of the Southern Indiana Health Systems Agency and although they don't expect to receive their full funding, they are still in business and I am still on the Board of Directors. It has been trying to hear the government dictate some things that have to be done, but I have survived and have enjoyed meeting many new people who dedicate their time to health planning. The Board of Directors will continue to operate even though the funding is decreased. Dr. Richard Huber, who is trustee from Bedford, will also be serving on the Board of Directors of the SIHSA.

I am sorry that I will not be able to continue serving as trustee of the State Medical Association but feel that Dr. Stewart is very dedicated and will do an excellent job.

H. M. Manifold, M.D.
Trustee

Third District

The Third District Medical Society met in April 1981 in New Albany in conjunction with the Indiana Academy of Family Physicians with a good attendance and good scientific meetings plus reports from staff and officers as well as a panel discussion. Election of officers was held and the following physicians were elected: President—Wallace D. Johnson, M.D.; Secretary-Treasurer—Peter H. Livingston, M.D.

Our next annual meeting, to be held in the Spring of 1982, is tentatively planned at Spring Mill State Park in Lawrence County.

Serving as your district trustee, I am impressed with our state organization and the financial status. Our dues, compared to our neighboring states, are lower than any of the

others and our financial situation appears good; and I am impressed with our staff and officers and the dedication of each and every one. I would encourage all members to read the *ISMA Reports* as it will keep you fully informed of what the ISMA is doing.

As well as serving as your ISMA trustee, I am also involved in other organizations and feel as if this has helped me to understand the total medical arena to a better degree. I also serve on the Board of Directors of Blue Shield, Indiana Academy of Family Physicians, Southern Indiana Health Systems Agency, American Cancer Society-Indiana Division, and the local mental health clinic. I especially enjoy being liaison member to the American Association of Medical Assistants of the Indiana Society and the work that they are doing for their members. I am aware of some of the problems that they are having with membership, dues, etc., and would encourage all physicians to do whatever possible to help their office staff to become members of the American Association of Medical Assistants.

Some of the ideas that I see ISMA continuing to face or needing to address in the future are the HMOs, Independent Physicians Associations and professional reviews. With some evidence that we will be having physician surplus in some areas, I think that we are going to have to look at how physicians are going to react to this. I see hospital medical staffs' relationships increasing with allied health providers and various committees and feel as if we are going to have to make sure that our members stay active or become active in local hospital policies and procedures. I am also concerned about the problems that some of our members are facing with the third party notifications of patients and the provider when fees are above the usual and customary, and the letter that seems to be creating a barrier between the patient and doctor. I will continue monitoring this situation.

There is a resolution being presented by one of our member societies from our district to move from one district to another. I agree that there needs to be a look at the total district situation in Indiana, but I am not sure what the best solution is for everyone.

I have visited a few county medical societies and will attempt to visit more throughout the year. Please inform me when and if you would like for me to visit your society. I will look forward to seeing as many of you as possible at our annual meeting in October in Indianapolis. Also, mark on your calendar, the Third District meeting at Spring Mill in the Spring of 1982.

R. G. (Dick) Huber, M.D.
Trustee

Fourth District

The Fourth District Medical Society met May 13, 1981 at the Hillcrest Country Club in Batesville, Ind. Officers elected at the meeting were: president, Ricardo C. Dom-

ingo, M.D.; vice-president, Henry W. Conrad, M.D.; secretary-treasurer, Robert P. Acher, M.D.

Tennis and golf were played throughout the day and enjoyed by all. An evening address following the dinner was carried out by Mr. Robert Garton, president pro-tem of the Senate, from Columbus, Ind.

Doctor Alvin Henry was re-nominated to the Blue Shield Board at the business meeting. The 1981 meeting will be held at Greensburg.

The afternoon business meeting featured a panel discussion by representatives from the State Office of ISMA including Mr. Donald Foy, Dr. Howard Jackson, Dr. Arvine Popplewell, Dr. John Knot, Dr. Shirley Khalouf, Dr. Martin O'Neill, Dr. Alvin Haley, and Dr. Robert Seibel. Other members of the staff from the State Office attended. I would like to thank the State Medical Association staff for their time and support involved in this year's district meeting, especially to Sara Klein whose idea it was to carry out the panel discussion. This format of presentation appeared to be quite successful in helping explain the Association's position on various issues.

The Board of Trustees over the next several months will be involved in making very serious decisions concerning such problems as our own insurance company, I-MEDIC, mandatory membership to ISMA and AMA, and the possibility of setting up our own peer review organization within the state. As my goals are considered for the coming year in our own district, I hope to discuss these issues with all members at the various county medical society meetings. I also hope to encourage other members' participation at the state level where they can see how the democratic principles of the ISMA operate. It is through the participation of the various members at the "grass roots" level that the strength of our society will continue to develop and will represent the members of the Indiana State Medical Association.

Mark M. Bevers, M.D.
Trustee

Fifth District

The Fifth District annual meeting was hosted by the Putnam County doctors on May 27, 1981. The various athletic events planned for the day had to be cancelled because of rain except for the six-mile run, won by our alternate trustee, Benny Ko. We all congratulated 5th District President James Johnson and his fellow county ISMA members for doing an excellent job in arranging the day's program.

The business and dinner sessions were held in the Cloverdale Holiday Inn with good attendance. Well received was a panel discussion on ISMA and AMA activities with the following participants: Drs. Haley, O'Neill, Popplewell, S. Khalouf, Scamahorn, Lukemeyer, Knot, Siebenmorgen, and ISMA staff members. We extend our appre-

Reports of Trustees

ciation to each of these busy persons who took time from their daily work to come and share their knowledge as well as to listen to our special concerns. It was certainly the feeling of those in attendance that physicians who do not actively belong to their respective county, ISMA, AMA, and IMPAC organizations are really not doing their fair share nor pulling their share of the load, leaving so much more to be done by others.

During the business session, Dr. Frank Swaim, Rockville, was elected president of the Fifth District and stated that he hopes to arrange for next year's meeting to be held at Turkey Run State Park. Daniel J. Dwyer, M.D. was elected secretary-treasurer and Paul Siebenmorgen was elected to a second three-year term as trustee. Gratitude was expressed to Dr. Clyde Jett who has served as the district secretary-treasurer for a number of years.

Following the business session came a time for "attitude adjustment" prior to a delicious dinner and an address by Indianapolis Mayor William Hudnut, who delighted and challenged the 85 persons attending.

I close this report by expressing my thanks to the members of the 5th District for the privilege of serving as trustee, to express my gratitude in our fine ISMA staff for all their help and assistance, and to say "Thanks" to Benny Ko, our faithful and loyal alternate trustee.

Paul Siebenmorgen, M.D.
Trustee

Sixth District

In reviewing the past year in the Sixth District, a few things stand out in my mind:

First is a recurrence of an apathy with respect to participation in the activities of ISMA, commission membership especially. Each district has the opportunity to have membership on each commission. As vacancies have occurred, I have found it difficult to find interested and concerned replacements. I intend to address this problem more thoroughly.

Second, Sara Klein appeared in the Sixth District as our field representative. She has been well received and has done a most creditable job for her freshman year.

Lastly, the Sixth District annual meeting was held in Connersville on May 6th with Dr. Douglas Morrell presiding. State staff officers and the Executive Committee were present and contributed to the program.

Dr. Clarence G. Clarkson was elected to continue as alternate trustee. Sixth District officers elected were as follows: Dr. Wm. F. Kerrigan of Connersville, president; Dr. Robert J. Warren of Richmond, vice-president; and Dr. Wylie G. McGlothlin of New Castle, secretary-treasurer.

Mr. Bob Daley of Muncie, speaker of the House of Representatives of Indiana, gave us a fine program on state legislative activities.

I shall continue to try to keep my District

appraised of the many changes taking place about us which will affect our profession and to represent my constituents at the state level.

Davis W. Ellis, M.D.
Trustee

Seventh District

This year's Seventh District Medical Society meeting was held at the Highland Country Club in Indianapolis and for the first time in our district marked the inclusion of the Seventh District of the Indiana Academy of Family Physicians.

We were pleased to have a number of ISMA dignitaries in attendance including Dr. John Knot, chairman of the ISMA Board of Trustees, Dr. Larry Allen, speaker of the ISMA House, Dr. Shirley Khalouf, vice speaker of the House and Dr. Everett Bickers of the ISMA delegation to the American Medical Association. Also in attendance from the State Association were ISMA executive director, Mr. Don Foy, and ISMA field staff members, Mr. Howard Grindstaff and Ms. Sara Klein.

Seventh District member Dr. Alvin Haley updated the members on the developments in PSRO and ISMA's response to its current situation, the newly established corporate visitation program, and a proposed educational program in risk management.

Dr. George Lukemeyr reported highlights of the annual session of the AMA on behalf of the ISMA Delegation.

Additional reports were received from Dr. Larry Allen who encouraged the members of the district to submit resolutions to the ISMA House of Delegates which will meet in October. Dr. Popplewell, who serves as president of the Indiana Physicians Insurance Company, reported that the prospectus is in its final stages of approval. Members will soon be able to purchase stock.

Dr. John Knot pointed out his concern over the lack of medical input in the State legislature and added that he felt better communications with members might alleviate this problem. Dr. B.T. Maxam, a member of the Board of Blue Shield, presented a brief financial and status report on behalf of the Board of Directors of Blue Shield of Indiana.

Annual elections were conducted and resulted in the selection of Dr. Warren Gray of Morgan County as president-elect of the Seventh District and Dr. Malcolm Scamahorn was reelected to continue his service to the district as secretary-treasurer. Dr. H. Marshall Trusler, who is now completing his second year as an alternate trustee from the district, was elected to succeed Dr. John Pantzer who is completing the two full allowable terms as trustee. The election for Dr. Trusler left a one-year vacancy for alternate trustee. Dr. Garry Bolinger was elected to succeed Dr. Trusler in that position. In other action, the district selected Dr. B.T. Maxam for nomination to the Board of Directors, Mutual Medical Insurance Inc.

Following the district meeting, members were joined by their spouses for dinner. We

are pleased that following dinner Governor Robert Orr was in attendance to report on the first several months of his administration.

During the year a number of Seventh District Medical Society members have been extremely active participants in the State Association and in the representation of Indiana physicians at the AMA. In addition to nearly two years of service as president of the association, Dr. Arvine Popplewell has maintained his activity as immediate past president of the Association and as president of the Indiana Physicians Insurance Company. As Dr. Alvin J. Haley completes his year as president of the State Association we congratulate him on a job well done and wish him success as he continues as immediate past president and with his activities in his national specialty society. Dr. Doug White and Dr. George Rawls, treasurer and assistant treasurer respectively, have worked closely with the Executive Committee and the Board of Trustees in handling the numerous financial aspects of our Association.

We were pleased to know that Dr. Malcolm Scamahorn as a delegate to the AMA has also been reelected to the AMA's Council on Medical Services and that he is joined in the vigorous representation of Indiana physicians at the AMA by Delegate Dr. George T. Lukemeyr.

Numerous other members of the district have provided a wide range of services to the Association this past year ranging from editor of THE JOURNAL through commission and committee service. We thank all of them for a job well done in a busy year.

Donald C. McCallum, M.D.
John G. Pantzer, M.D.
Trustees

I appreciate the trust placed in me by the members of the Seventh District Medical Society on my selection to serve as trustee to the ISMA. I hope that the members of this district will continue to relate to my successor their feelings on all matters pertinent to organized medicine. I extend my congratulations to Dr. H. Marshall Trusler and Dr. Garry Bolinger for accepting the rewarding challenge of service which I have enjoyed the past nine years. I have appreciated as they will, the council and support of my fellow trustee, Dr. Donald McCallum.

John G. Pantzer, M.D.
Trustee

I am pleased to take this opportunity on behalf of all the physicians of the Seventh District Medical Society to thank Dr. John Pantzer for his faithful and insightful participation in the business of the ISMA's Board of Trustees for the past nine years. For nearly a decade, John has been attentive, analytical and practical—qualities of statesmanship we all hope to contribute to the progress of our State Association. We are pleased to know that his continued interest will be available to the State Association through other forms of service.

Donald C. McCallum, M.D.
Trustee

Reports of Trustees

Eighth District

The activities of the medical profession in the 8th District 1980-81 have not been unusual, and the number of members has decreased from 292 to 289.

Our annual meeting on June 17, 1981 was hosted by Delaware County with President Larry Cole presiding. Members and guests attending that meeting enjoyed an address by political journalist M. Stanton Evans concerning current events in Washington, D.C.

At the business meeting, several visiting ISMA officers and AMA delegates commented on items of current interest. Also, the membership elected Dr. Richard Reedy as the new trustee with Dr. William Van Ness as the new alternate trustee.

It has been the genuine pleasure of this writer to serve as 8th District trustee for the past six years, representing as accurately as possible the views and wishes of the membership; and the district is to be warmly commended for its selection of Drs. Reedy and Van Ness as its new representatives.

Jack M. Walker, M.D.
Trustee

Ninth District

The 1980-81 medical-political year was "bittersweet." The Board of Trustees has been heavily involved in state and national legislative processes; continuing efforts to carry out the decision of the 1980 House of Delegates to form a life insurance company owned by physicians; monitoring the progress of I-MEDIC (the data accumulation company); monitoring membership services (such as selecting the company to carry medical insurance policies for ISMA members); improving and maintaining liaison with the Indiana State Board of Health, the Indiana Medical Licensing Board, and the third-party carriers; and communicating the results of these efforts to the ISMA membership.

The 1980 national elections were heralded by many physicians as a reprieve from the ominous intrusion of government into medical practice. However, we're finding that a tremendous amount of time and effort are required to responsibly formulate plans for cost containment, plan for review of unusual fees, consider handling the return of block grants to the state for medical care, and educate recently elected conservatives who have no previous awareness of medical care problems. The members of this district and the state association must increase their interest and participation to support the ISMA officers and staff in their attempt to handle these matters appropriately.

The resolution presented by the Ninth District to the 1980 House of Delegates regarding errors in Blue Shield claims passed the House with modifications. Response to that resolution has been less than overwhelming throughout the state. At this time there is no trend to report in the third-party-

error area due to the lack of input from doctors' offices.

Our Ninth District annual meeting was held in June in Crawfordsville, following an enthusiastic pre-planning meeting in Lafayette in March. The overwhelming sentiment at the pre-planning meeting was for a medical-political orientation at the district meeting. At the district annual meeting, Dr. Lowell H. Steen, Hammond, Indiana, past president of ISMA and the current chairman of the AMA Board of Trustees, gave an excellent overview of current political problems involving medical practice. He also spoke of changes occurring in the AMA.

The honor of representing the Ninth District as trustee continues to be a great pleasure to me. Please inform me of your concerns and interests so that I may represent this district as well as possible. As chairman of the Board of Trustees of ISMA, I have had the rewarding experience of meeting many practicing Indiana physicians, medical-political leaders from across our country, executive branch staff involved with medical care matters in the federal and state government, and state and national legislators. I thank all of you in the Ninth District for the opportunity this position has provided me. I have attempted to represent the doctors of this area as you would wish to be represented. Additionally, I have learned a tremendous amount which I have pledged to utilize fully in my involvement with district and state association activities in the future.

John A. Knote, M.D.
Trustee

Tenth District

Several events have led to 1980-81 being a year of transition and change. Most significant was the sudden death of our executive secretary, John Twyman. After 32 years with the same administrative leadership, many functions had been taken for granted. As the incoming trustee, I was denied the advantage of John's counsel in reviewing our history, strength and goals. After the October ISMA convention, in which Dr. Martin O'Neill of Valparaiso was chosen president-elect, our major focus was on the search committee for a new executive secretary. Mr. Jack Swike was finally chosen and assumed his duties on Feb. 1, 1981.

As Mr. Swike assumed his duties, the election of three delegates was conducted. Dr. David Harvey, Dr. William Grosso and Dr. Daniel Ramker were elected. Later this spring, Dr. Grosso passed away and Dr. Lee Trachtenberg of Munster was selected to continue his term.

Several new commission appointments were arranged, including Dr. William Fitzpatrick, Legislation Commission; Dr. G. David Beiser, Emergency Services Commission; and Dr. Alex Stemer, Education. I have continued with the Public Relations Commission at this time. Our Legislative Committee, under Dr. Albert Willardo, remained very active throughout the time of

the General Assembly meeting every Saturday morning.

The distributions have been progressing through the efforts of both the county auxiliaries. Mrs. Bonnie Swarner of Valparaiso has piloted Porter County activities and Mrs. Donna Serna and Cheryl Hieber have co-ordinated Lake County activities. Tenth District president, Dr. Lee Trachtenberg, has undertaken a goal to increase membership participation.

Our first social outing was a dinner party and star show at the Adler Planetarium in Chicago. Two busloads of members and their families attended this enjoyable outing.

Our annual Tenth District meeting will be held on Sept. 2, at Wicker Park Pavilion and golf, tennis and ladies' programs will be arranged by Drs. Trachtenberg and Santare; Dr. Otis Bowen will be our speaker for the evening.

Charles D. Egnatz, M.D.
Trustee

Eleventh District

As your trustee, I had the privilege this year of serving as a member at large and as chairman of your ISMA Executive Committee.

Our district meeting was held at the Meshingomesia Country Club in Marion. The meeting was well attended by members as well as by ISMA officers and staff. Dr. Phil Thorek was the evening speaker and was well received. Dr. Richard Glendening was elected president, Dr. Fred Poehler was re-elected secretary, and Dr. Ed Langston was elected alternate trustee.

During the year, Dr. Langston and I visited the county societies in our district. We also participated in the pre-planning district meeting.

As a member of the Executive Committee, I participated in the Washington Congressional Visitation in April. Those of us who had participated previously were most impressed with the general change in attitude and philosophy which we encountered. These changes are most encouraging.

I believe, however, that as these changes are made and more responsibility and authority is returned to the states, our medical society will be faced with new problems and challenges. It will be important that we individually and as an organization be alert to the changes and ready to meet the challenges.

Herbert C. Khalouf, M.D.
Trustee

Twelfth District

The Twelfth District ISMA meeting will be held Sept. 17, 1981, at the Downtown Holiday Inn, Fort Wayne. Scheduled as speaker is John Bell, photographer with oceanographer Jacques Cousteau. A spouse's program is scheduled to coincide with our 5 p.m. business meeting. In addition to electing district officers, we will be electing a new alternate trustee.

Reports of Trustees

In the six months during which I have served as trustee, I have attended meetings at all but two of our component county societies and plan to make an appearance at all of them prior to the ISMA October meeting. I am particularly grateful to Howard Grindstaff, ISMA field representative, for his helpful assistance and for the many hours and miles he traveled to visit county society meetings with me.

The input from the local level has been vocal, and a surprising unanimity has evolved on key issues. This unanimity makes representing a group as heterogeneous as the physicians of the Twelfth District seem a more manageable task. I welcome the expressions of individual viewpoints for without them, representation is impossible.

Passage of House Bill 2042 gives the chiropractors of Indiana wide ranging and unprecedented scope of activities in patient care. ISMA opposed this portion of H.B. 2042, and your staff was quite active and visible during the entire legislative session. I am certain that lack of physician involvement allowed passage of this bill as it stands. It does not take effect until July 1982 (after the next session of the General Assembly). In this day of emphasis on individual freedom and caveat emptor, physicians must decide where we stand. I think we have always stood for what is best for our patients, but how far does that obligation extend? Dr. Knot, chairman of the Board of ISMA, has made a significant point differentiating medical care from health care. We as physicians provide medical care. Health care is provided by paramedical and nonmedical personnel as well. Keeping in mind the differentiation between health care and medical care, how far does our obligation to protect the public extend and to what price? It is a problem which should be addressed.

One of the most urgent issues facing organized medicine in Indiana at this time is PEER REVIEW. I think it naive to believe third-party payers will not insist on appropriateness of care review from hospitals. Already Blue Cross-Blue Shield has a pilot project in many Indiana hospitals to conduct that review. Many feel that ISMA must step into this post-PSRO void if review is to remain in the hands of *knowledgeable* physicians. By *knowledgeable* I mean physicians involved in patient care and therefore aware of the changing needs of our patients at the local level. If State Medical becomes involved in the review process, I think there is significant danger that any ISMA review authority could be placed in an untenable position unless the House of Delegates is quite specific in mandating what we expect and more importantly, what we do *not* expect in terms of function. At least one resolution will address this issue directly, and it deserves careful thought.

Finally, I would like to extend a warm note of thanks to Dr. DeWayne Hull. Although my tenure serving as alternate trustee with Dr. Hull was brief, it was meaningful

and informative. I appreciate the opportunity and accept the responsibility to represent the physicians of the Twelfth District and look forward to doing so in the future.

Michael O. Mellinger, M.D.
Trustee

Thirteenth District

The 13th District Medical Society participated in many activities in the past year. The annual district meeting was held on Sept. 10, 1980 at the Elcona Country club with President Dale Parshall, M.D., presiding. A full day of activities was enjoyed by many.

Election of new officers includes president, M. Gerald Quinn; president-elect, Donald Weninger; and secretary-treasurer, G. Richard Green. Dr's. Robert Sweeney and Otis Bowen were suggested as nominees to the Blue Shield Board of Directors. Donald Chamberlain was re-elected trustee of the District.

The 1981 meeting will be held at the Knollwood Country Club in South Bend on Sept. 16, 1981, with an excellent program planned.

The ISMA auxiliary held their annual meeting at the Century Center in South Bend on April 14-16 with State President Mrs. Herbert Schiller of South Bend presiding. It was a well organized and rewarding three days for the auxiliaries. The 13th District assisted in sponsoring the program, which was well attended. It is good to know that we have such dedicated spouses assisting us.

President Reagan's budget cutting programs are directly affecting HSA and PSRO as well as other government-supported organizations impacting on health. It appears that the HSA will be replaced by a local non-regulatory foundation for health planning. The PSRO will either be consolidated or replaced by Blue Cross and/or local hospital quality assurance programs. It is imperative that physicians not assume all is well but remain committed to being involved in health planning and quality assurance peer review. It should be anticipated that if sudden freedom of spending by hospitals occurs, a significant increase in cost may follow. Such fears or results may signal governmental controls even more onerous than presently realized.

The ISMA continues to identify areas that will benefit the membership. The Indiana Physicians Insurance Company (IPIC) is operational and in the process of selling stock as well as its initial products. The members will benefit from the available insurance policies designed for physicians and their employees at a reasonable cost. The computer capabilities of I-MEDIC, while under pressure from PSRO cutbacks, will be able to be utilized for data collection and support functions of the organization.

The 13th District-supported resolution asking for additional ISMA field service representation resulted in approval of Howard

Grindstaff to again be liaison to the northern half of the state. He will assist the members in county societies as so requested. Howard is extremely capable and knows our district well. We are fortunate and will directly benefit by this change.

Our own Otis Bowen has been of great joy and pride to our District and we wish him well in his new ventures.

There is good communication with the present State and Federal representatives from our District and it is our desire to continue this effort.

I would like to thank Mrs. Rose Vance, executive director of the District and John Luce, M.D., alternate trustee to the 13th District, for all the assistance these past few years. The many members and their spouses who have participated in the many activities of organized medicine or acted as representatives to various health organizations should be complimented by all for their commitment to maintaining and improving the health care system for our patients.

Donald S. Chamberlain, M.D.
Trustee

Report of Chairman, Board of Trustees

The specific activities of the ISMA Board of Trustees have been reported to the membership regularly through "Knote's Notes." This report shall outline opinions and prejudices I have developed while conducting Board activities for the past two years. Here are my summary "odd thoughts" that, hopefully, might stimulate membership participation in the future:

1) The ISMA Board of Trustees is a remarkably representative group of doctors. We need more input from individual members in the districts to assist us in decisions ranging from government interference to computer applications and insurance matters.

2) The weakest link in our Association remains at the district level where there are outstanding officers in all 13 districts, but where poor attendance at many meetings limits district effectiveness. Quarterly meetings might help to increase member response at the district level. One way to improve communication between members and their trustees would be to provide minutes of county society meetings to each trustee throughout the year. We also must rebuild the bridge from hospital staff lounges to the county society level.

3) The permanent commissions of the ISMA and the various ad hoc committees should be effective avenues of member input into ISMA activities, and several of these groups function very well. However, poor attendance at some commission meetings decreases access of general membership in the decision-making process. I believe that appointment of alternates for commission positions might make these groups more effective and involve more members in formal ISMA activities.

4) Your state officers and trustees have communicating relationships with each

United States representative and senator from Indiana (even the Democrats), and do influence their thinking on medical matters. However, we need continued improvement in the relationship of Indiana physicians with the state legislators. ISMA staff does an excellent job representing us to the legislature, but more political influence must be generated by individual doctors—and their spouses in the local areas.

5) The current Reagan Administration intent to return more control of medical care functions to the state (block grants, etc.) is a philosophy many of us applaud. However, I have recommended to the Board of Trustees and Executive Committee that ISMA form advisory groups to assist the Governor, the Indiana State Board of Health, and possibly the Indiana Medical Licensing Board in making decisions that involve distribution of funds for medical care.

6) Thanks to the ISMA staff and the input of the treasurer, assistant treasurer and the Executive Committee, the budget for 1980-81 is literally exciting. We don't contemplate a dues increase. Please consider contributing or increasing your contributions to the Indiana Medical Political Action Committee.

7) ISMA philosophy, as derived by House of Delegates' decisions, includes exploration of non-dues sources of income. We are at the threshold of some positive results in many of the areas; however, future endeavors in such activities will be enhanced by contacting all other state medical societies for their experience and by using affordable consultation of specialists in the area of interests. The House of Delegates and trustees should utilize these outside sources in addition to our own staff and membership resources.

8) The ISMA staff is one of the best in the

country (may be the best). Let's continue to utilize them to their fullest ability.

9) Two common phrases are being misused by the government and the media to the disadvantage of the public and physicians:

(a) Doctors deliver *medical care*, not "health care." While we are heavily involved in the total health picture, our main training and activities are in medical diagnosis and treatment of abnormal states of health. Including various non-MD workers with physicians in general reference to "health care" suggests that non-MD personnel can be as effective as MDs in total medical care—a fallacy we must attempt to dispel.

(b) The so-called "pro-competition" legislative proposals at the national level (Gephardt Bill, etc.) are actually pro-regulatory and anti-competitive recommendations—a concept the public must understand in order to help us influence the legislators.

10) Long-range planning is nothing more than looking ahead to forecast future needs regarding state and national legislation, ISMA policy, membership solicitation, retaining peer review as a physician function, staff requirements, and our manner of meeting these goals. We all use future planning mechanisms. The House of Delegates and the Board of Trustees should continue to strive for a mutually acceptable "organizational telescope" through which we can peer into medical-political space.

My deepest gratitude to the ISMA officers and trustees who have been so helpful to me and to the staff who have held my hand and guided me in the past two years. Thanks, posthumously, to Dr. Jim Harshman, to whose memory my activity as board chairman has been dedicated.

John A. Knote, M.D.
Chairman

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Scientific Exhibits

**George T. Lukemeyer, M.D.,
Indianapolis, Chairman**

Improving Your X-Rays

Exhibitor: Midwest Center for Radiological Physics, University of Wisconsin Medical School, Dept. of Radiology, Madison, Wisc. 53706.

Attendants: Margaret M. Liss, M.S., Larry A. DeWerd, Ph.D., John R. Cameron, Ph.D.

Description: This exhibit on improving your x-rays will include common problems, helpful hints, patient exposure and benefits. It is presented by the Midwest Center for Radiological Physics in cooperation with the Dept. of Radiology, University of Wisconsin, and the Wisconsin Radiological Society.

Radiography with Small Dose Glucagon

Exhibitor: Stanley M. Chernish, M.D., 307 E. McCarty St., Indianapolis, Ind. 46285.

Co-Exhibitors: Roscoe E. Miller, M.D., Gordon F. Greeman, M.D., Dean Maglinte, M.D., Bernard Rosenak, M.D., and Rocco E. Brunnell, all of Indianapolis.

Description: During hypotonic radiography small doses of glucagon were given to determine a minimal dose and dose response. Fifteen male volunteers received placebo and 0.025 mg, 0.05 mg, 0.1 mg, and 0.2 mg of glucagon intravenously over a timed 30 seconds, double-blind, and crossover.

Onset of drug effect occurred in 50 seconds with all doses. Gastrointestinal tonicity was significantly decreased ($p < 0.001$) in most subjects following all doses of glucagon. As the dose was increased, the duration of action was longer. With the smallest doses the response was not consistent. For radiography there was adequate stomach, duodenal, and small bowel hypotonicity with doses of 0.1 mg of glucagon when given intravenously, with extremely few reports of minor side effects.

The modern, short biphasic examination (air contrast plus regular examination of the stomach) is becoming more popular. Low dose, 0.1 mg of glucagon, makes the biphasic examination practical. Thus, there is no need to delay the small bowel study.

Bronchial Artery Embolization for Control of Massive Hemoptysis

Exhibitor: Robert W. Holden, M.D., Wishard Memorial Hospital, Dept. of Radiology, Indianapolis, Ind. 46202.

Co-Exhibitors: Valerie P. Jackson, M.D., Indianapolis; Mark H. Wholey, M.D., Pittsburgh, Pa.; Larry A. Cooperstein, M.D., Pittsburgh, Pa.

Attendants: Valerie P. Jackson, M.D., Robert W. Holden, M.D.

Description: Massive hemoptysis can be life-threatening. Whatever the underlying cause, in the vast majority of patients the bronchial arteries are the source of bleeding. Embolization of these arteries can be life-saving. This exhibit will present the experience of two institutions and provide an understanding of anatomy, pathophysiology, angiographic findings, and interventional techniques.

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OBITUARIES

Samuel C. Millis, M.D.

Dr. Millis, 51, a Crawfordsville physician, died at his home July 13.

He was a 1959 graduate of Indiana University School of Medicine and practiced in Crawfordsville since 1960.

Dr. Millis was a U.S. Navy veteran and a former Montgomery County coroner. He also served as the physician for the Crawfordsville Police Department. He was a former vice-president of the Montgomery County Medical Society and was a member of the American Academy of Family Physicians.

Ben R. Ross, M.D.

Dr. Ross, 83, a retired Bloomington physician, died June 29 at Bloomington Hospital.

He was a 1925 graduate of Indiana University School of Medicine and was an Army veteran of World War I. He served in the Navy from 1925 to 1927.

Dr. Ross, a member of ISMA's Fifty Year Club, received a commendation in 1975 from Governor Otis R. Bowen for "outstanding contributions in the field of medicine and to the citizens of Indiana."

Edgar J. Hunt, M.D.

Dr. Hunt, 86, a retired Terre Haute physician, died Jan. 25 at Union Hospital, Terre Haute.

He was a 1927 graduate of Indiana University School of Medicine and was a veteran of World War I.

Dr. Hunt was a member of the Vigo County Medical Society.

Joseph G. S. Weber, M.D.

Dr. Weber, 70, a retired Terre Haute radiologist, died June 15 in Clay County Hospital, Brazil.

He was a 1935 graduate of Indiana University School of Medicine and was an Army veteran of World War II. He retired in 1977.

Dr. Weber was a past president of the Indiana Roentgen Ray Society and was a member of the American College of Radiology and the Radiological Society of North America.

Herman T. Combs, M.D.

Dr. Combs, 74, an Evansville physician and surgeon, died July 18 at Deaconess Hospital, Evansville.

He was a 1932 graduate of the University of Louisville School of Medicine. He served as a flight surgeon with the Air Force during World War II.

Dr. Combs was the Vanderburgh County coroner from 1951 to 1961 and from 1968 to 1976. He was a former head of the surgical department at Deaconess Hospital.

James D. Kubley, M.D.

Dr. Kubley, 56, a Plymouth physician and community leader, died July 26 at Marshall County Parkview Hospital, Plymouth.

He was a 1947 graduate of Indiana University School of Medicine and was a member of the American Academy of Family Physicians.

Dr. Kubley was the current president of the School Building Corporation in Plymouth, and was involved in the Plymouth Area Chamber of Commerce. In the early 1960s he had been a member of the Plymouth City Council. He was a past president of the Plymouth Industrial Development Corporation and a past president of the Marshall County Parkview Hospital medical staff.

Ethan E. Shrock, M.D.

Dr. Shrock, 72, an Amboy physician for 47 years, died July 7 at Dukes Memorial Hospital, Peru.

He was a 1933 graduate of Indiana University School of Medicine.

Dr. Shrock was Miami County coroner from 1939 to 1944 and county health officer from 1948 to 1952. He was a member of the Grant County Medical Society.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

Joseph Finneran, M.D.
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COMMERCIAL ANNOUNCEMENTS

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WANTED: Certified General Surgeon and Orthopedist to join multi-specialty group established in 1944 adjacent to 100-bed hospital located in Lincoln Park, Michigan. The Clinic services an Industrial Traumatic Center in addition to their private practice. Call or write John P. Tagett, M.D., or Claude Benavides, M.D., (313) 383-6000, West Outer Drive Medical Center, 25700 West Outer Drive, Lincoln Park, Michigan 48146.

RETIRED PEDIATRICIAN—Let's presume that you are still interested in your field but have given up active practice. We are much in need of your wisdom and experience as advisor and counselor to our youth health magazines (8 of them) which feature health and life improvement at each level of elementary school. Do get in touch. Contact Cory SerVass, M.D., 317-636-8881.

EMERGENCY MEDICINE position available: Emergency Physician to join professional group practicing in superior emergency department in Hammond, Indiana. Contact Dr. Robert F. Guthrie at (312) 474-0014 or Emergency Care, S.C. at (312) 327-0777.

EDITOR/WRITER, new publication. Science and/or nursing background. Knowledge of cancer treatment and research. Salary to high 20s. Must be willing to relocate to Indianapolis. Write to D. Mark Robertson, P.O. Box 567B, Indianapolis, Ind. 46206.

COMPHEALTH—Locum Tenens—Physicians covering physicians, nationwide, all specialties. We provide cost effective, quality care. Call us day or night. T. C. Kolff, M.D., President, CompHealth, 175 W. 200 S., Salt Lake City, Utah 84101. (801) 532-1200.

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WANTED: Physician for part time (40 hours per month) in Terre Haute area. Please send C.V. to Linda L. Stropes, M.D., 4605 N. Rosslyn Ave., Indianapolis, Ind. 46205.

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Deadline: First working day of month PRECEDING month of issue.

WHAT'S NEW?

CONTINUED FROM PAGE 542

THE WORLD'S FIRST and only permanent health care exhibition center is planned for business in 1983 at Orangeburg, New York. Pro Expo is designed for doctors, hospital administrators and health care professionals as an all-inclusive exhibition hall for health care equipment.

SIEMENS GAMMASONICS has a new nitrous oxide monitor that absorbs nitrous oxide and may be returned to Siemens for quantitative analysis. It is useful in operating rooms, in dental offices and in areas in which nitrous oxide is stored.

MIDMARK has improved the Trend IV Model 111 examination table. A new gently contoured top adds to comfort. The foot control is easier to reach. There is a push-bottom automatic return from elevated to low positions, which vary from 26" to 42". Trendelenburg position of 45° is possible.

STOMAHESSIVE® Paste, protective skin barrier-filler-sealant-in-a-tube, is added to Squibb's ostomy care line. The paste will adhere to moist or weeping skin and will fill uneven skin surfaces to form a protective seal. It will adhere for up to seven days. A 30-second drying time allows the paste to develop a firm layer almost immediately.

JANSSEN PHARMACEUTICA, a subsidiary of Johnson & Johnson, announces FDA approval for marketing of NIZORAL™ (ketoconazole) Tablets, an oral broad-spectrum antifungal drug. Candidiasis, oral thrush, coccidioidomycosis, histoplasmosis, chromomycosis are all sensitive to the drug except in the case of fungal meningitis. A single daily dose of 200 mg is recommended.

JUNG PRODUCTS announce Futuro®, Style No. 62 "Firm Compression" Support Panty Hose with exclusive Tapered Tension® design. The graduated compression feature has been shown in clinical studies to relieve the pain and swelling associated with chronic venous insufficiencies. The product is seamless and cosmetically acceptable.

DOUBLEDAY has published *Gourmet Cooking Without Salt*. The author, Eleanor Brenner, is an excellent cook and for 15 years has personally lived on "low-salt" and, in the process, has devised recipes for almost all foods. Guests in her home eat the low-sodium diet without being aware of its nature. The cook book is recommended for all families. Since standard hypertension is probably nothing more than sodium poisoning, everyone should eat as little salt as possible. This book is said to make that goal possible without sacrificing good flavoring. \$15.95.

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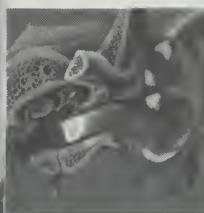
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Precautions: General: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. Blood dyscrasias: Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. Allergic reactions: Erythema

multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. Gastrointestinal reactions: Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. CNS reactions: Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness.

Miscellaneous reactions: Drug fever, chills, toxic nephrosis with oliguria and anuria, periarthritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose[®] packages of 100; Prescription Paks of 20 and 28. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose[®] packages of 100; Prescription Paks of 40. Pediatric Suspension, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint).

Suspension, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).



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in recurrent urinary tract infections*



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Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue¹...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations¹... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae^{1,2} with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. 2. Data on file, Medical Department, Hoffmann-La Roche Inc.

BactrimTM DS

160 mg trimethoprim and 800 mg sulfamethoxazole

DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience



* due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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October 1981 • Vol. 74 • No. 10

The JOURNAL

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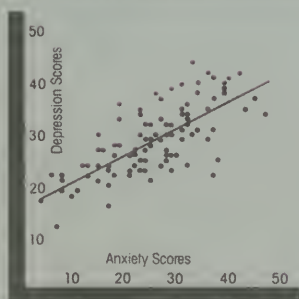
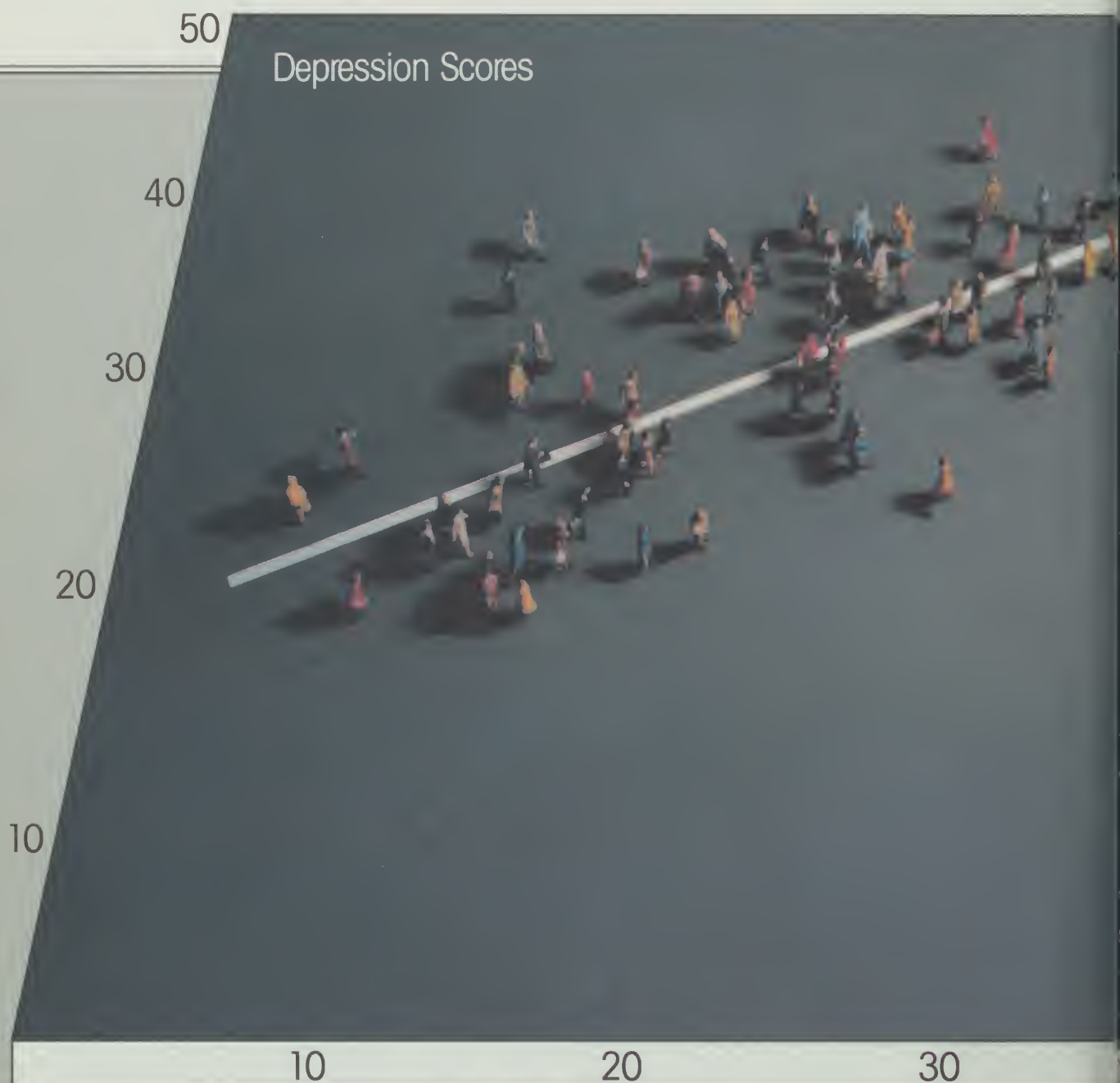


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S

INSIDE: The Art of Doing 'Nothing'—
An Alternative Way of Helping People

FOR THE 7 OF 10 NONPSYCHOTIC



Clear correlation between anxiety and depression³

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

³Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics* 11:438-441, Sept-Oct 1970.

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS^{1,2}

Most depressed patients are also anxious. . .

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.^{1,2} One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.³ As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.⁴ Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.⁵ Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. 2. Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry* 35:1359-1365, 1978. 3. Claghorn J: The anxiety-depression syndrome. *Psychosomatics* 11:438-441, 1970. 4. The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry* 137:1163-1172, 1980. 5. Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology* 61:217-225, 1979.

Anxiety Scores

50

In moderate depression and anxiety

Limbitrol®^{IV}

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquillizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses.) Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies.

Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

WHAT'S NEW?

MIDMARK has introduced a specialty/procedures table. "Power 112" uses power to achieve full chair, flat or tilted table positions, and will elevate from table top at 25½" to 41½". Accessories include side rails, I.V. pole, aluminum arm board with pad, and instrument tray. Designed for office, clinic and hospital emergency room. There is also the Power 113 Specialty Procedures chair for examinations and special procedures.

MARION LABORATORIES announces that Silvadene® (silver sulfadiazine) burn cream will soon be available in 20-gram tubes. The new package form will be a special convenience in office practice and in emergency departments for treatment of minor burn injuries, or for electrocautery procedures.

THE 3M COMPANY announces a new smaller monitoring electrode for use in intensive care, cardiac care, etc. The No. 2249 Red Dot Monitoring mini adult electrode is smaller (6 cm diameter), has exclusive Micropore tape backing with hypoallergenic adhesive, and has a silver/silver chloride electrode for dependable performance.

SEARLE LABORATORIES and KNOLL PHARMACEUTICAL jointly announce FDA approval for marketing of verapamil, the first calcium antagonist drug available in the U.S. The FDA approval is for the Knoll intravenous form of verapamil for treatment of certain types of supraventricular arrhythmias. The Knoll brand name is ISOTOPIN®. A New Drug Application has been filed by Knoll requesting approval of oral verapamil for treatment of angina pectoris. Searle will also market verapamil tablets for angina when approved. The Searle brand name is CALAN™.

PARKE-DAVIS will begin marketing in the U.S. of a unique dosage form of erythromycin. Called ERYC, the special capsule preparation features tiny pellets of erythromycin base, each of which is given an enteric coating to protect the drug from the harmful effects of gastric acidity.

SEARLE has FDA approval to market Aldactone® in 100 mg. tablet form. Aldactone was formerly available only in 25 mg. tablets. The new form will allow patients on a single-daily dose regimen of 100 mg. to take only one tablet. Patient compliance will be improved.

CONTINUED ON PAGE 694

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.



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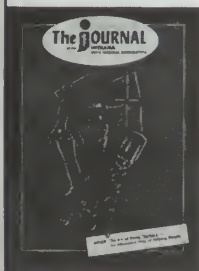
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ABOUT THE COVER

Physicians often are "uncomfortable" unless they can DO something for a patient—tests, prescriptions, surgery, etc. But Dr. David F. Wehlage, a South Bend psychiatrist, says physicians should consider an alternative way of helping people, namely, "The Art of Doing 'Nothing'." For details see Page 670.



MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis



John Evans' Attica Home To Be Restored

The 19th century house of Dr. John Evans in Attica, Indiana, still stands and is now destined for restoration.

Long since forgotten and neglected, the significance of the property recently was made known to the Potawatomi Festival organization by a 99-year-old Attica resident, Mrs. L. L. Johnson. This group now is in the process of raising funds, primarily through the annual Potawatomi Festival, for the building's restoration.

Attica, located in the Wabash Valley a little more than 20 miles downstream from Lafayette, is the site of the three-day Potawatomi Festival, held last month. This annual occurrence, which originated in 1971, recognizes, commemorates and celebrates noteworthy Attica citizens and events.

Among others, these noteworthy citizens include George A. Hay, founder of the Grand Old Opry, Nashville, Tennessee; Hollywood singer of the 1930s and 1940s, Helen Morgan (of "boop-boop-a-doop" fame); and Edward Hovey, founder of Wabash College at Crawfordsville.

Dr. John Evans, who began his medical practice in Attica in 1839, conceived and founded Indiana's State Hospital system for the blind, the deaf, and the mentally ill. His experience led him to the concept



that certain illnesses and afflictions require government aid for proper care. He formed a club at Attica to espouse his ideas and later became active politically to bring them to fruition.

Evans was a builder. In Indiana his major contribution was the Indiana Hospital for the Insane; in Illinois it was Northwestern University; in Colorado, where he was Territorial Governor during the Civil War, he was a builder of railroads.

In Indiana his original hospital building has long since disappeared. In Attica his original building endeavor, his house, though ravaged by time, still stands.

Evans purchased the property on which he built his house from a family by the name of Garrett, in

1839. He sold it to a family by the name of Funk in 1845 when he moved to Indianapolis to supervise the building of the State Hospital. More recently, the property was acquired by Dr. Fugazzi of North Carolina.

Dr. Fugazzi, in turn, has given the house to Potawatomi Foundation, Inc., a not-for-profit organization, for restoration as a state historical landmark.

Funds raised by the organization are to be used to restore the Evans home. Next year's festival is scheduled for Sept. 17, 18 and 19.

(I am indebted to Mr. Harold R. Long, chairman of the John Evans Fund, for the photograph and information on this page. The address of the Potawatomi Festival is P.O. Box 408, Attica, Ind. 47918.)

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EDITORIALS

Cochlear Implant System: Hope for the Totally Deaf

Persons totally deaf or nearly so cannot benefit by use of conventional hearing aids. However, for those whose deafness is due to loss of cochlear function and whose auditory nerves are functional, an electronic device with elaborate microscopic controls may convert sound into electrical impulses that stimulate the auditory nerve.

The result, when perceived by the cerebral centers, does not "sound" like normal sound but, with proper training and practice, will allow the patient to "hear" and interpret most of the conventional sounds in the environment.

The difference between what the instrument produces in the sensory centers of the brain and the absolute silence the patient has suffered previously is tremendous. Even meaningless "sounds" are welcomed and, with experience and training, most of the sounds, although not similar to normal sounds, are subject to interpretation by the patient.

The Department of Otolaryngology of I.U. School of Medicine is one of several departments in the U.S. that conducts clinical research on the new system. The Food and Drug Administration exercises control over all new medical devices, just as it does over new drugs.

The device is now in the stage of clinical testing. At the same time all the clinical researchers are seeking improvements in the system. All the resulting data are

transmitted to the Walt Disney Hearing Rehabilitation Research Center for collation and study.

It is presumed that, after the electronic device has been improved maximally and after the training of the patient in its use has been fine tuned and further refined, the instrument will be approved by the FDA for general use.

Comments on John Shaw Billings

On behalf of the staff of the National Library of Medicine, I would like to thank you for Dr. (Charles A.) Bonsett's item in Medical Museum Notes and Dr. (William M.) Webb's "There's a Doctor in the Library" (June 1981).

Dr. Billings' memory is revered at the National Library of Medicine and, more importantly, his influence is still felt by physicians around the world in the continued publication of the *Index Medicus*, which he began over 100 years ago.

Whenever I am called on to speak about the Library, John Shaw Billings figures prominently in my remarks. The Library's auditorium is named in his honor, as is a special scholars' study room. Indiana physicians can indeed be proud of this giant of 19th century medicine.

Martin M. Cummings, M.D.
Director
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Do You 'Cost' Too Much?

Commentary

THOMAS A. FELGER, M.D.
Fort Wayne

FOR YEARS WE as physicians have taken the blame from politicians and the media for our country's rising health care costs. While we are usually not blamed directly, the tone of most articles implies that we charge or make too much and if we didn't, the problem wouldn't exist. I'm sure we all know that this is factually not true, and that, in fact, the physician's share of the health care dollar has actually declined in the last decade.

The proven overwhelming factor in health care costs is hospital care. While we do not set hospital rates, we do utilize the hospital for our practice and may control more of their costs than we realize. While none of us has been excited by preadmission certification, utilization review, or PSROs, they have shown definite problems and patterns that do document cost problems in our hospital usage.

While emergencies and seriously ill patients must be treated immediately and without regard to cost, many of our patients not in these categories do present options for hospital care. Pure diagnostic admissions should probably not be admitted on Thursday or Friday as hospital ancillary services do not fully function on weekends. A similar timing problem is the bronchoscopy

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or simple biopsy done on Thursday with the patient waiting in the hospital until Tuesday for a pathology report. If the patient were discharged on Friday or Saturday, \$600-\$800 could be saved for the same diagnosis. If the path report is positive, a readmission does involve extra planning, but certainly will save significant costs.

Parallel to this is a patient who waits as an inpatient for a digoxin level or thyroid profile to finally be back on the chart, even if medication adjustments could be made after discharge. Along the same line of thought is the post-op young adult who waits as an inpatient for suture removal, which can often be done after discharge in the office. Again, major cost savings could be effected for the same quality of care and diagnosis by avoiding expensive inpatient rates.

Lastly, I would like to ask the few physicians in our community who sign out to the emergency room to reconsider this practice. By signing out to an E.R., your patients are forced to utilize a very expensive system of outpatient care, even if they could be treated by phone.

While the above situations are by no means inclusive of the problem, I think the bottom-line thought process should be: Does this patient really need this level of care? I hope that individually and collectively we physicians can work at not "costing" too much.

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Reagan Will Recover If We Let Him

Guest Editorial

ALFRED A. MESSER, M.D.
Atlanta, Ga.
Psychiatrist

PRESIDENT REAGAN may be almost fully recovered physically from his wounds, but his mental recovery may take much longer. I hope we will give him the time and privacy he needs. If we don't, he could be in for a deep depression several months down the road.

When someone suffers a severe accident, illness, or assault, they suddenly feel vulnerable to everything. "It" *did* happen to them, and the realization that, "I almost died" makes life seem more frightening. It takes time to sort out the emotions associated with a near escape from death—time to reorganize our thoughts and cope with complex psychologic reactions.

We all experience minor traumas every day. Nothing drastic: say you are running on a tight schedule and stop at a drugstore. In your haste you lock the keys in your car, and then must either wrestle with a coathanger, call a relative for the spare keys, or pay a locksmith to open your car. All that afternoon and perhaps for the next day or two you tell everyone about your foolish, "stupid" mistake. By telling and retelling the event, you are coping with the temporary disorganization it caused.

People who have had surgery are even more prone to this. The competent surgeon knows he must save time for each patient to hear his perceptions of the operation: it is as necessary for the patient in coping with his operation as it is for the person telling about the locked keys. And for them, the scar is a visible sign of the trauma. Who could forget the picture of Lyndon Johnson displaying his abdominal scar after gallbladder surgery?

After any traumatic episode, there is a general sequence of emotional responses. First, the individual may deny the episode occurred. Second, he/she then accepts it. Next comes anger toward

oneself or toward the individual or group who caused the incident. The person finally goes through a reorganization period, and takes up his or her life again, sometimes functioning better in normal activities, sometimes worse. This sequence occurs whether the trauma is mild or severe, whether the individual involved is a postman or a president.

The personality of the person is a significant factor in recovery. I once treated a 60-year-old wholesale furniture salesman for depression. He was an extremely well organized man who had set company sales records for 10 years. On his way to work one morning, he was involved in a minor highway accident. It was not his fault, and although he was shaken up, he was not physically injured. The other driver, fearing a lawsuit, insisted that the salesman be examined by a doctor. This process took several hours; afterwards, he began his calls in a rental car. He finished his day's work and went home to complain bitterly to his wife about the unforeseen accident, how much time he'd lost, and how it "totally knocked the props out from under me." He called in sick the following day, and gradually became depressed; it took him six months to recover.

This compulsively organized man probably suffered more than would a more carefree or relaxed individual, who might even have enjoyed his "morning off." People on strict schedules may similarly resent time lost because of trauma, both the actual time the incident takes, and the time they need to recover from it. We are learning more about responses to trauma every day, and as physicians, we need to be aware of these reactions and teach our patients about them.

Many Vietnam veterans who fought in an "unpopular" war are only now showing symptoms of that experience, both physical and psychological. A startling statistic: Vietnam veterans comprise 0.9% of the general population, but 11% of our prison population.

Reprinted by permission from the *Journal of the Medical Association of Georgia*, June 1981.

**'It takes time to
sort out a near
escape from death . . .'**

Prominent persons must also contend with an added stress after trauma—publicity and higher expectations. Mrs. Jacqueline Kennedy was a stalwart figure for months after her husband's assassination in 1963. Not until four years later did her bitter depression surface in public.

For the first two days after President Reagan's surgery, physicians described his recovery as "splendid." The press and public read that as "astounding" and "miraculous." Only the week after his operation did we learn that he was human after all—running a fever, taking antibiotics, and having trouble sleeping. The Saturday morning before his discharge, the hospital spokesman finally admitted that a 70-year-old man might take longer to recover from a gunshot wound than would a younger man.

Because he is our President, we attribute to Reagan more strength than the average citizen, and perhaps we expected a "miraculous" recovery. Thus, the normal course of healing may have been somewhat more difficult for him, since he realized he had our expectations to live up to.

His emotional recovery may be similarly more difficult if we do not allow him enough time to sort out his responses to the shooting, and follow the sequence of reactions. It is fortunate for him that being wounded by gunshot is far more "heroic" and acceptable than being manually assaulted by an individual or by a gang throwing rocks and bottles.

Reagan must be allowed to tell and retell his story to sympathetic listeners in private. Still, anger and frustration mounts in the traumatized individual when he feels his life has been totally disorganized. That is why—and this is psychiatric, not political—if some of the President's economic programs are rejected he may tend to blame it on the assassination attempt, and his emotional recovery may take that much longer.

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DOCTORS & DRUG ABUSERS



With this article, prepared by L. A. Arata, M.D., Shelbyville, Ind., THE JOURNAL introduces a new series designed to highlight the personal experiences of physicians in dealing with drug addicts. Although the variety of clever schemes used by addicts is endless, it is hoped that this feature will serve as an educational tool in helping control shady dealings. Ours is based on a similar series originated by THE JOURNAL of the Oklahoma State Medical Association, "Drugs and Dirty Tricks." Your experiences are solicited and will be considered even if they are submitted on an anonymous basis.

It seems to me that the best continuing medical education for doctors in practice, both old timers and the newly ordained, lies in two-way amalgamation of the newest ideas tempered with the seasoning of experience. I would hope that we can develop a series of articles on the tricks of the drug abusers that will exemplify this concept.

"Buy low and sell high"—the recipe to riches. Our license to prescribe puts drugs of known

quality and content into patients' hands. If these drugs have abuse potential, they are sought by abusers and by the merchants of the drug abuse market; so we need to be always alert and cautious lest we play into their hands. After all, a legitimate pill that retails for 10 or 15 cents can be worth 10 or 20 or more times that price in our public schools, or on the street. The pushers know this and keep trying to outsmart us in order to buy low and sell high.

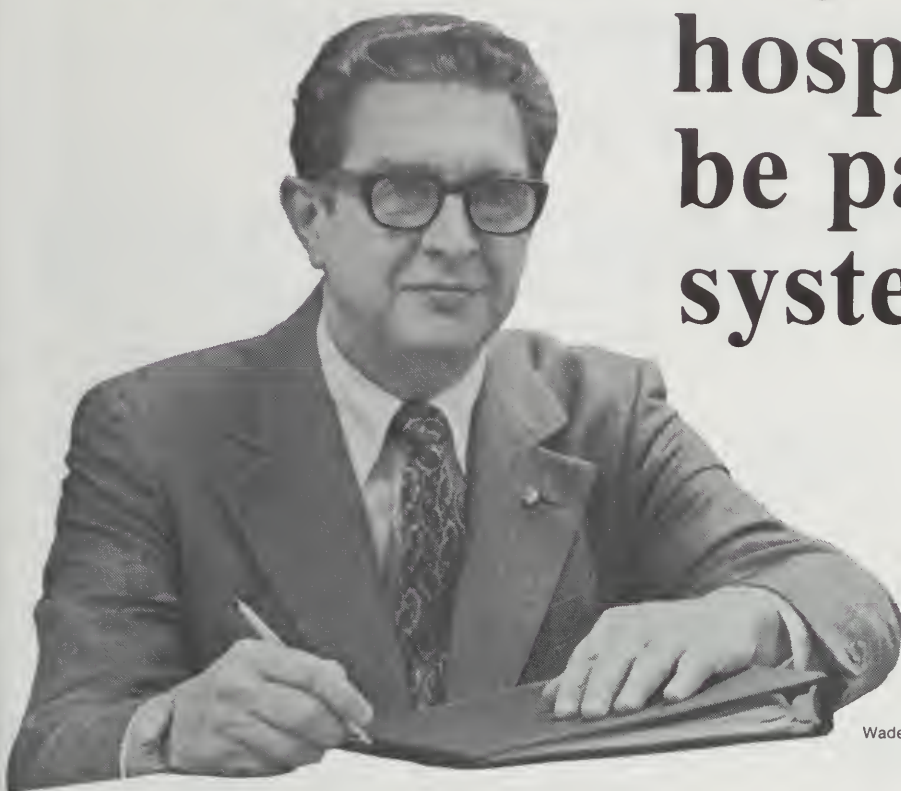
Recently, a detail man told me that older doctors are the ones most easily tricked by abusers. I thought we old-timers knew all the tricks through experience.

I thought I was beyond being taken in until recently when a young man whom I had helped raise from childhood had severe back pain. He knew what he needed (by brand name), a warning sign I did not heed promptly. After all, I knew the man from childhood on, as well as his family. He got only 10 Percodan and 40 Valium, but it surely gave my pride a severe blow. The episode does re-alert me to the abuse potential of the patient or pseudo-patient who knows what he needs.

Will other doctors please contribute to a continuing education series for all of us? Please!

The second article for this series will appear in next month's issue. It was first published in "The Alabama MD" and deals with a controlled substance scam reported in Birmingham, Alabama.

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Wade Mountz, President, NKC, Inc.

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* Twenty-nine percent of the nation's general community hospitals were in centrally managed multi-hospital systems in 1980. And this number is multiplying rapidly. (April 1981 issue, *Modern Healthcare*)

ISMA Warns Consumers Against Purchase of Cancer Insurance

'Consumer odds are better at the track, at the lottery, or with Las Vegas slot machines . . .'

ALVIN J. HALEY, M.D., president of the Indiana State Medical Association, states that all Hoosiers should be warned that cancer insurance is not a good buy, and of the sales tactics used by some companies to sell cancer insurance: such as exaggerated statistics, exaggerated benefits of the policy, and patient testimonials.

Dr. Haley said the Select Committee on Aging, of the Ninety-sixth Congress, reported that "... dread disease policies, particularly cancer insurance policies, have very limited economic value. They are characterized by loss ratios that are well below average which means high profits for the company, low returns for the consumer."

The 1980 study goes on to say, "... consumers' odds are better at the track, at the lottery, or with Las Vegas slot machines." And we all know who the big winners are in those games of chance.

Cancer insurers typically return about 40 cents or less of the premium dollar, keeping the 60 cents for themselves in profits, commissions for salesmen, and administrative expense.

All Hoosiers, especially the elderly, should be made aware that they can purchase a health insurance policy that provides fairly comprehensive protection against medical costs incurred through illness or accident for approximately the same amount of money, according to Dr. Haley.

Quoting from the Committee on Aging report, Dr. Haley said, "Few people who purchase a can-

cer insurance policy will ever develop cancer, and fewer still will file a claim. Thus, only a small number of cancer insurance purchasers will collect anything at all. And those who do collect benefits will average about \$1,000. A very small number will collect a substantial sum of money. But even those who do collect a large sum of money are likely to face the prospect that the collection will mean that other insurance companies will reduce what they pay." This is known as coordination of benefits.

And the Committee on Aging was told that any person who buys a cancer insurance plan as a supplement to his or her Blue Cross/Blue Shield group health insurance plan will find to his chagrin that his benefits under Blue Cross/Blue Shield will be reduced dollar for dollar by any benefits which are payable under a cancer insurance plan. And this applies to Medicare supplement coverage as well as to their regular health insurance policies. It also applies to any insurance company that has coordination of benefits as part of its plan.

Dr. Haley said all Hoosiers should be aware that the Select Committee on Aging found the advertisements and policies used by cancer insurers "unjust, unfair, inequitable, misleading, and contrary to law and/or public policy." He said the report also notes that the sale of cancer insurance policies to the elderly, all of whom have the benefits of Medicare and most of whom have at least one Medicare supplementary health insurance policy, is clearly "duplicative, misleading, unfair, and unconscionable."

A spokesperson for Consumer Services of the Indiana Department of Insurance stated that "while cancer policies have some economic benefit, persons would be better off expanding their existing coverage rather than buying a single dread disease policy."

Dr. Haley recommends that any Hoosier who has purchased or is thinking about purchasing a cancer insurance policy call Consumer Services for information about the limitations of the policy.

This article was prepared for "Heartbeat," an ISMA-produced newsletter.

DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandroster-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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Kenneth M. Badger
Administrative Assistant

KEN BADGER, 20, is the youngest member of the ISMA full-time staff. Now, with nearly three years of headquarters experience, he has been given a wide range of responsibilities, including plenty of typing and transcribing.

Ken assists Mike Huntley in his work with the Commission on Medical Services, the Indiana Society of Internal Medicine, and I-MEDIC. His role entails—what else?—preparing correspondence and minutes of meetings.

Ken also helps out with Membership Services, especially when annual membership dues billings are being prepared. He's the person who prepares and distributes county and district meeting notices on a year-round basis, and he often helps answer incoming telephone calls.

In the ISMA mailroom, Ken prepares the equipment for daily use—the postage and copy machines, the folding machine and the mail scales.

One of his most important jobs is ordering the supplies necessary to keep the headquarters functioning. He inventories and orders everything from paper to paper clips and paper plates to typewriter ribbons. And who do you suppose gets to meet and greet the myriad of salespeople who drop in almost daily?

Ken, who says he feels very comfortable with his job, was married last month to the former Miss Lisa Ann Davis of Indianapolis.

Meet Your ISMA Staff



Dana R. Wallace
Computer Programmer

DANA WALLACE, 28, joined the Association's staff last December after working a short while for the Indiana Hospital Association and for nearly eight years as a programmer for Hoosier Photo Supplies, Indianapolis.

His responsibilities include all computer operating and programming requirements of both ISMA and I-MEDIC.

Dana, a bachelor, is originally from Argenta, Illinois, but has been living in Indianapolis the last several years. He attended Decatur Community College in Illinois and has been attending classes at IUPUI in Indianapolis.

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Serum K⁺ and BUN should be checked periodically (see Warnings).

[†]Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Before prescribing, see complete prescribing information
SK&F Co. literature or PDR. The following is a brief
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***WARNING**

This drug is not indicated for initial therapy of edema or
hypertension. Edema or hypertension requires therapy
tailored to the individual. If this combination represents
the dosage so determined, its use may be more con-
venient in patient management. Treatment of hyperten-
sion and edema is not static, but must be reevaluated
in conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal
hepatic dysfunction, hyperkalemia. Pre-existing elevated
serum potassium. Hypersensitivity to either component or
to sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or
otherwise, unless hypokalemia develops or dietary intake
of potassium is markedly impaired. If supplementary potas-
sium is needed, potassium tablets should not be used. Hyper-
kalemia can occur, and has been associated with cardiac
irregularities. It is more likely in the severely ill, with urine
volume less than one liter/day, the elderly and diabetics with
suspected or confirmed renal insufficiency. Periodically,
serum K⁺ levels should be determined. If hyperkalemia
develops, substitute a thiazide alone, restrict K⁺ intake. **As-
sociated widened QRS complex or arrhythmia requires
prompt additional therapy.** Thiazides cross the placental
barrier and appear in cord blood. Use in pregnancy
requires weighing anticipated benefits against possible haz-
ards, including fetal or neonatal jaundice, thrombocytopenia,
or adverse reactions seen in adults. Thiazides appear and

triamterene may appear in breast milk. If their use is essential,
the patient should stop nursing. Adequate information on use
in children is not available. Sensitivity reactions may occur
in patients with or without a history of allergy or bronchial
asthma. Possible exacerbation or activation of systemic lupus
erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations
(particularly important in patients vomiting excessively or
receiving parenteral fluids). Periodic BUN and serum creati-
ninine determinations should be made, especially in the
elderly, diabetics or those with suspected or confirmed renal
insufficiency. Watch for signs of impending coma in severe
liver disease. If spironolactone is used concomitantly, deter-
mine serum K⁺ frequently; both can cause K⁺ retention and
elevated serum K⁺. Two deaths have been reported with
such concomitant therapy (in one, recommended dosage
was exceeded; in the other, serum electrolytes were not
properly monitored). Observe regularly for possible blood
dyscrasias, liver damage, other idiosyncratic reactions. Blood
dyscrasias have been reported in patients receiving tri-
amterene, and leukopenia, thrombocytopenia, agranulocy-
tosis and aplastic anemia have been reported with thiazides.
Triamterene is a weak folic acid antagonist. Do periodic
blood studies in cirrhotics with splenomegaly. Antihyperten-
sive effects may be enhanced in post-sympathectomy
patients. Use cautiously in surgical patients. The following
may occur: transient elevated BUN or creatinine or both,
hyperglycemia and glycosuria (diabetic insulin requirements
may be altered), hyperuricemia and gout, digitalis intoxica-
tion (in hypokalemia), decreasing alkali reserve with pos-
sible metabolic acidosis. 'Dyazide' interferes with fluorescent
measurement of quinidine. Hypokalemia is uncommon with
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dietary intake of potassium-rich foods. Corrective measures
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should laboratory values reveal elevated serum potassium.
Chloride deficit may occur as well as dilutional hyponatremia.
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disturbance. Calcium excretion is decreased by thiazides.
'Dyazide' should be withdrawn before conducting tests for
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Diuretics reduce renal clearance of lithium and increase the
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Adverse Reactions: Muscle cramps, weakness, dizziness,
headache, dry mouth; anaphylaxis, rash, urticaria, photo-
sensitivity, purpura, other dermatological conditions; nausea
and vomiting, diarrhea, constipation, other gastrointestinal
disturbances. Necrotizing vasculitis, paresthesias, icterus,
pancreatitis, xanthopsia and, rarely, allergic pneumonitis
have occurred with thiazides alone. Triamterene has been
found in renal stones in association with other usual calculus
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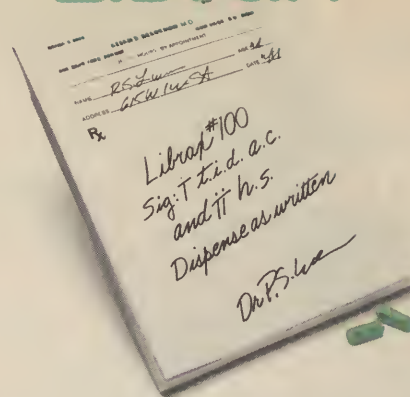


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Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

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Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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References: 1. Sullivan MA, Cohen S, Snape WJ: *N Engl J Med* 298:878-883, Apr 20, 1978.
2. Snape WJ et al: *Gastroenterology* 72: 383-387, Mar 1977.

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Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.



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...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

prescribe

Tenuate^{*} Dospan^{*} ^{IV} (diethylpropion hydrochloride USP)

75 mg controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Precautions and Adverse Reactions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.¹ And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."² Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate—it makes sense.
And it's responsible medicine.

Merrell Dow

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Cayey, Puerto Rico 00633

References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride. Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York: Raven Press, 1978, pp. 391-404.

Tenuate^{*} ^{IV}
(diethylpropion hydrochloride USP)

Tenuate Dospan^{*} ^{IV}
(diethylpropion hydrochloride USP)
controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyslexia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in mid-morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine[®]) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

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Direct Medical Inquiries to:



MERRELL DOW PHARMACEUTICALS INC.
Subsidiary of The Dow Chemical Company
Cincinnati, OH 45215, U.S.A.

Merrell Dow

Medicine in a Nutshell

JESSIE M. STEVENSON
Indianapolis

THE HISTORY of medicine is in reality the history of the evolution of man's intelligence. It is the story of how a medical discovery is perfected by the contributions of many men building upon the superstitions and mistaken judgments of others.

According to Sir William Osler, "Medicine arose out of the primal sympathy of man with man, out of the desire to help those in sorrow, need and sickness."

To primitive man the world was full of spirits, both good and bad. Man thought an evil spirit caused his illness. Therefore, the spirit needed to be appeased so that he might be made well again.

The early doctors were the "medicine men" who were both priests and physicians. They wore the garb of animal skin and the antlers of a stag on their heads. Their medicine consisted of a brew of repugnant

herbs, which together with their incantations were supposed to frighten the evil spirit away.

The many superstitions to which they resorted were known as "sympathy cures." For example, if someone had been wounded by a sword, salve and a bandage were put upon the sword and the patient left unattended.

Three of the early forms of treatment were trephining, blood-letting and acupuncture, the latter being in use today. The blood-letting treatment continued until the 19th century.

In the early history of medicine, the physician looked down on the surgeon, the surgeon looked down on what was known as the "barber surgeon" who performed most of the crude surgery of the day. Certain crimes were punishable by cutting off the noses of the so-called criminals. The surgeons of India became very efficient in constructing "new noses" using skin from a victim's body. Mid-wives played an important role in obstetric care.

At one point in the history of medicine, physicians were specialists in that they treated only a given disease. Some confined themselves to certain parts of the anatomy, such as a doctor for the King's right ear and another one for his left ear.

After the belief in spirits came the belief in gods and finally the belief in one god over all the others. The eye of the god Horus is said to have been made into the Rx on prescriptions. Among the Semetic tribes of Asia Minor, the snake was the symbol of the god of healing.

It is said that the Caduceus, a winged staff with a serpent twined around it, the symbol of medicine, may have originated in the cult of Aesculapius. Followers of this cult worshipped some subterranean deity whose symbol was the serpent, which was a representative of underworld forces.

The first criminal code of medical record was given by the Babylon King, Hammurabi, about 2200 B.C. It established the fees of doctors. It further stated: "If he shall kill the patient, or destroy the sight of an eye, his hands shall be cut off."

The first known physician was Imhotep, a famous architect and builder of pyramids.

Hippocrates of Cos, known as the father of medicine and for his famous Hippocratic Oath, lived in the 5th century B.C. He said: "To know is one thing, merely to believe one knows is another. To know is science, but merely to believe one knows is ignorance." He believed that the doctor's place was at the bedside of the patient. He firmly believed in the power of nature to heal.

Among the earlier great doctors was Rhazes of the 9th and 10th centuries, and Avicenna of a century later. Avicenna is noted for his production of alcohol and sulphuric acid, the two materials from which ether was eventually made centuries later. Soranus of Ephesus, of the same period, wrote a book on the diseases of women, which was in use as a textbook for 15 centuries. He is known as the father of obstetrics and gynecology.

The author is a member of the National Professional Writers Club and of the International Platform Association. She has been a frequent contributor to THE JOURNAL.

Galen, who lived 130 A.D., became a most important doctor whose teachings were strictly adhered to for more than a thousand years. He is noted for his work in anatomy. Although he dissected only animals, it was assumed that the anatomy of man was the same. He said: "Never as yet have I gone astray, whether in treatment or prognosis, as have many other physicians of good reputation. If anyone wishes to gain favor . . . all that he need do is to accept what I have been able to establish."

Mention should be made of the work of Leonardo da Vinci, the painter and engineer, who produced hundreds of anatomical drawings that were of great value in the field of surgery.

Vesalius, Paracelsus, and Paré were the outstanding medical men of the Renaissance. Sir William Osler said that Vesalius' book, "De Humani Corporis," was the greatest book ever printed from which modern medicine dates. Paracelsus is said to have burned the works of Galen and Avicenna in public to "protest the unquestioning acceptance of medical dogma." Paré, the surgeon, wrote after the cases he had treated: "I dressed his wounds, God healed him."

The invention of the microscope by the Jansen brothers of Middelburg, Holland and an improvement of the telescope by Galileo were important factors in the progress of medicine in the 17th century.

The outstanding medical men of the century were: Harvey who discovered circulation of the blood; Sydenham, known as the English Hippocrates; and Malpighi, who completed the work of Harvey by the discovery of capillaries.

In the 18th century great scientific achievements were made in the fields of chemistry and physics. The clinical thermometer and the stethoscope and other inventions of this

period became most valuable assets in the field of medicine.

The outstanding medical men of the 18th century were: John Hunter, who raised the status of the surgeon to one on a par with the physician; Jenner, who discovered vaccination against small pox; Morgagni, the founder of modern pathology; and Benjamin Rush, known as the American Sydenham. In addition, we would mention Priestly, who isolated oxygen; Pinel, who believed insane people were sick people and not criminals; and Auenbrugger, who gave us the art of percussion as a diagnostic method.

The industrial revolution of the 19th century gave us many products of engineering which contributed greatly to the further progress of medicine. This century has been referred to as the century of preventive medicine.

The notable medical men of the 19th century were: Virchow, with his theory of cellular pathology; Morton, Long and Wells and the discovery of anesthesia; Lister and his discovery of the antiseptic technique; Pasteur and bacteriology and pasteurization; Koch, who carried on Pasteur's work and isolated the tubercle bacillus; Semmelweis and his discovery of puerperal fever; Wasserman and his blood test for syphilis; Roentgen and the discovery of x-rays; Freud and psychiatry; Schwann and his discovery that the cell is the fundamental unit of all living things; and Ehrlich, who gave us chemotherapy.

It is interesting to note how a special discovery evolved. Avicenna used boiling oil in the treatment of burns before antiseptics were known. Paré discarded the practice several centuries later and then, after the elapse of some 300 years, Joseph Lister discovered the principle of antiseptics.

It is said that the 20th century has made more medical progress than during the entire thousands of

years of its history. The electric computer has been the most valuable contribution to man's progress, especially in the field of medicine.

This century affords such names as Bernard Christian, who performed the first successful heart transplant; Michael DeBakey, who developed the artificial heart and was the first doctor to surgically repair weakened blood vessels; and Jonas Salk, who discovered a vaccine for polio.

Medically speaking, this century has been the era of computer diagnosis, wonder drugs, artificial organs, telemedicine, microscopic surgery, corneal transplants, genetic engineering, advancement in the treatment of cancer and heart disease, and a widening in the fields of pediatrics and geriatrics. Work also is being done on a vaccine for leprosy and the synthesizing of insulin. A leading psychologist has said: "Cracking the brain code may give us the key to eventually controlling the future of man."

Today we have the family practice doctor and other specialists in the various fields of medicine, and old treatments, once discarded, are being revived.

Medicine has come a long way from the "sympathy cures" (such as putting a spider in a nutshell to cure malaria) to the white-coated doctor of today armed with a vast arsenal of research at his disposal in combating disease.

As to the future of medicine, a Harvard University professor has said: "Especially in research, but also in practice, the medical men will have to collaborate much more closely with a wide range of non-medical experts."

Hippocrates said: "The physician's art consists of three things: disease, patient and doctor. The doctor is the servant of the art; the highest duty of healing is to cure the patient. The art of healing is the most distinguished of all the arts."

Dr. Vernon A. Shanklin, Terre Haute, Marks 100th Birthday

Dr. Vernon A. Shanklin, who practiced medicine in Terre Haute for 70 years, observed his 100th birthday Aug. 31 at the Holiday Inn in Vincennes. Upon his retirement four years ago, he moved to Vincennes where his son, Dr. Jack L. Shanklin, practices.

The Vigo County physician is credited with having delivered 8,000 babies, most of them home deliveries, since his graduation from Purdue University Medical School in 1906. (Purdue University Medical School and Indiana Medical College became the present Indiana University and graduated its first class in 1908.)

Dr. Shanklin was born in Jasonville, Ind. He is an Army veteran of World War I, after which he went to New York for postgraduate work. He returned to Terre Haute in 1919.

Looking back to those early days of his practice, he recalls riding horseback "in the middle of the night" to reach a patient. It was "pretty hard work, long hours. It was strenuous, but interesting. Always interesting."

Dr. Jack Shanklin said his father was "a very, very hard working man and, with the exception of a few hunting trips, his work was his vacation." He collected Indian artifacts and had a private museum recognized as the largest in the area.

American Legionnaires claim Dr. Shanklin as the oldest active Legionnaire in Indiana. The Indiana American Legion presented him a certificate recognizing his long service to the organization during his birthday reception.

Also on the occasion of his birthday, Dr. Shanklin received letters of commendation from President

Reagan, the Vigo County Medical Society and the Indiana State Medical Association, which he joined in 1911. In addition, he received letters from Governor Orr, Sen. Quayle, Sen. Lugar, and city commissioners of Terre Haute.

Happy birthday, Doctor Shanklin!



Letter From ISMA's Executive Director

August 19, 1981

Vernon A. Shanklin, M.D.
15 Circle Drive
Terre Haute, IN 47803

Dear Doctor Shanklin:

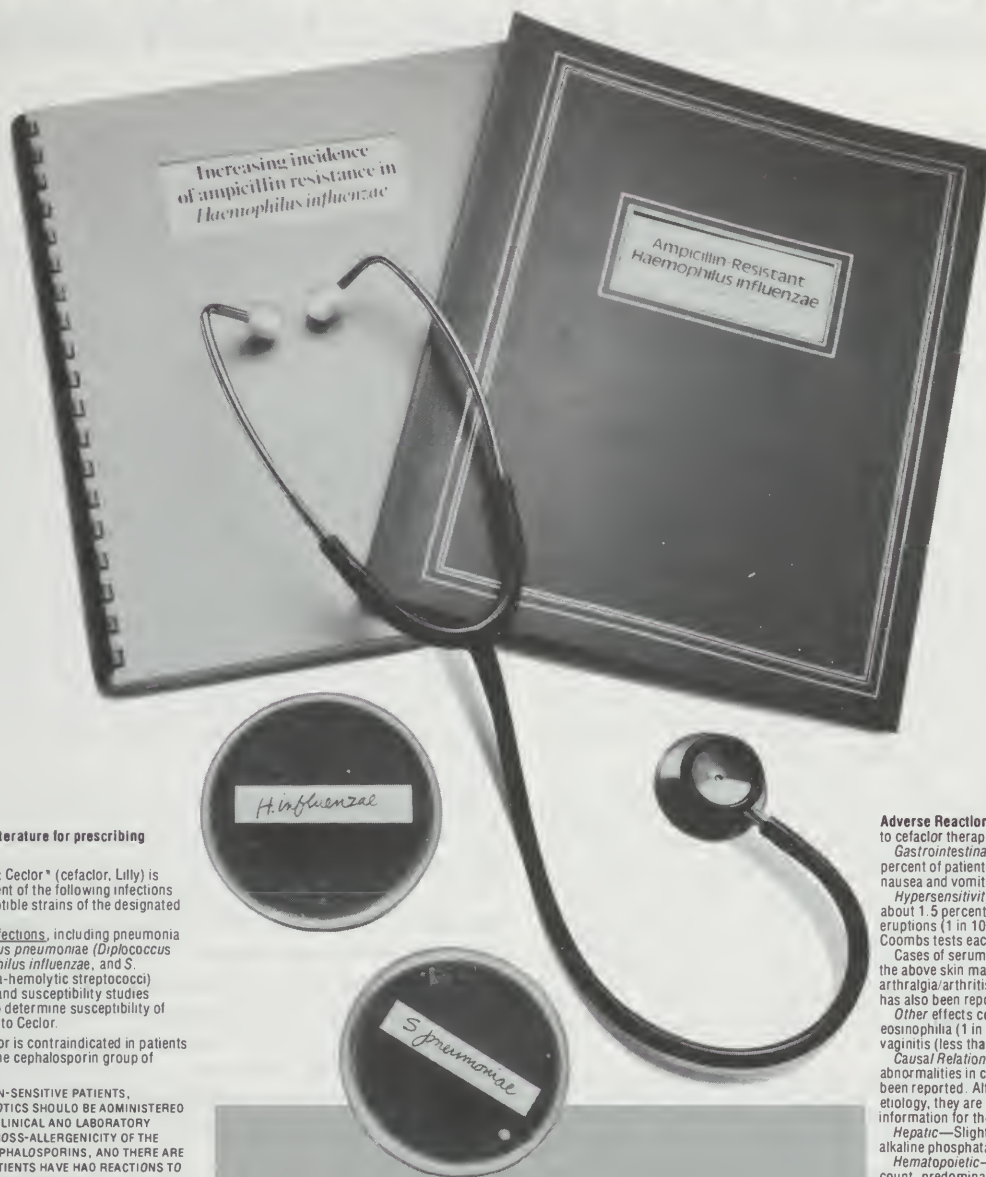
On the occasion of your 100th birthday, the officers and staff of the Indiana State Medical Association would like to take this opportunity to extend their warmest personal regards. Regardless of your other accomplishments, everyone considers this a significant achievement.

I cannot help but think of the changes in the practice of medicine that you must have observed since you began practicing in 1906. In 1906, the Indiana State Board of Health was concerned about the mortality rates of smallpox, diphtheria, scarlet fever, typhoid fever, diarrheal diseases, and pneumonia. When you moved to Terre Haute in 1908, the medical community was debating the superiority of ether versus chloroform as an anesthetic. Also, in 1908 the Vigo County Medical Society was praised in the ISMA Journal because it had purchased a stereopticon for use in its medical education activities. At the same time, the Journal of the American Medical Association devoted a number of pages to a debate over whether automobiles were an appropriate "conveyance for physicians." The article noted that several well-known makes cost \$500 or less.

Even though future physicians may also be cast in the role of pioneers, it seems to me that your era must have been particularly exciting due to the number of important advances. We wish you a happy 100th birthday and hope you have many more.

Sincerely,
Donald F. Foy
Executive Director

An added complication... in the treatment of bacterial bronchitis*



Brief Summary. Consult the package literature for prescribing information.

Indications and Usage: Cefaclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefaclor.

Contraindication: Cefaclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefaclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefaclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefaclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy: Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy: Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefaclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefaclor.⁷

Cefaclor®

cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transient abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic: Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic: Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal: Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[1030008]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.⁸

Note: Cefaclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from
Eli Lilly and Company
Indianapolis, Indiana 46285.
Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

100061

Chiropractor May Apply for Staff Privileges

Court Action in Oregon

A hospital governing board was required to adopt reasonable rules and regulations allowing licensed and qualified chiropractors and naturopaths admission to practice at the hospital, consistent with such applicants' individual training, experience and other qualifications, an Oregon trial court ruled.

The case was brought against the county hospital by a licensed chiropractor and naturopath. The county hospital, a small acute care facility, had 24 patient beds. All doctors of osteopathy and medicine residing in the county and engaged in active practice had staff privileges. Although the patient population at times was in excess of 24, such patients were accommodated by placing patients in the halls. Otherwise patient beds were available on a first-come, first-served basis to staff members' patients regardless of whether they were private or indigent patients.

On March 1, 1979, the chiropractor requested in writing that he be allowed hospital privileges. The request was limited to such privileges as would be consistent with his license to practice under Oregon law. On March 12, 1979, the chiropractor was informed in writing by the hospital that there were no provisions in the hospital or medical staff bylaws for a chiropractor to be involved "in acute care of illnesses requiring hospital admission."

On March 13, 1979, the chiropractor requested in writing that the hospital and medical staff bylaws be changed to allow applications for hospital privileges for chiropractors. After this written

Courtesy of The Citation, May 1, 1981.

request, he had a telephone conversation with a board member on April 4, 1979. It was agreed that the chiropractor would be invited to meet with the medical staff to review the matter. However, no invitation was extended and the meeting was never held.

In May 1979, the chiropractor submitted two additional written requests regarding an application for hospital privileges. On June 20, 1979, the medical staff voted unanimously that the medical staff bylaws would not be amended to permit an application by a chiropractor. The chiropractor was informed July 2, 1979, that the Hospital Credentials Committee had reviewed his application and had denied his appointment. He was advised that only Doctors of Medicine and Osteopathy and Dentists were permitted to use hospital facilities, including laboratory and X-ray services.

Based on these facts, the trial court concluded that the hospital's denial of appointment was arbitrary, capricious and unlawful. The hospital's actions denied "to the public financially able to pay for all or part of their therapy, hospital care and treatment, the services of health care professionals of their choice and the use of such county hospital facilities," the court said. The hospital was required to adopt reasonable rules and regulations allowing chiropractors and naturopaths admission to practice consistent with their training, experience and other qualifications, the court ruled.—*Samuel v. Curry County, and the Curry General Hospital Board* (Ore. Cir.Ct., Curry Co., Docket No. C 80-6-83, Nov. 3, 1980).

Statute Does Not Apply to Attorneys

The statute of limitations applicable to medical malpractice actions did not apply to a malpractice action against an attorney and his law firm for alleged negligence, the Indiana Supreme Court has ruled.

The suit against the attorney was over a will

Courtesy of The Citation, June 15, 1981.

he drafted. The Supreme Court said that the action was governed by the two-year statute of limitations.

The statute applicable to physicians and others of the medical care community did not apply to malpractice actions against attorneys.—*Shideler v. Dwyer*, 417N.E.2d 281 (Ind. Sup. Ct., March 3, 1981)

Private Hospitals May Exclude Chiropractors

Court Action in Ohio

Private, nonprofit hospitals may exclude chiropractors from using their radiology and laboratory facilities, an Ohio trial court has ruled.

Two private, nonprofit hospitals filed suit for a judgment declaring that their policies which made their radiology and laboratory services available to licensed MDs, osteopaths, dentists and podiatrists were reasonable and lawful. A chiropractor had, through clerical oversights, referred patients to the radiology departments of both hospitals and on one occasion obtained an electroencephalogram for one of his patients. Those services were contrary to the policies of the hospitals, and when that was called to the attention of hospital personnel, accepting patients from the chiropractor was ceased. He then wrote letters to the hospitals demanding that they change their policies with regard to the exclusion of a chiropractor from using the facilities of the X-ray department and receiving X-ray interpretations from the radiologists employed in that department. The hospitals refused and filed the action for a declaratory judgment.

In its findings of fact, the trial court noted that the chiropractor had X-ray equipment in his office that was suitable for use in his practice. The court observed that there were fundamental differences in the philosophy of treatment between chiro-

practors and the practitioners served by the hospital. It added that there was a substantial likelihood that this difference would probably create confusion and false impressions in the minds of patients about the hospital's responsibility to them. This, in turn, could create an increasing risk in liability based on the confusion and lack of understanding of the differences in treatment and practices of the respective professions, the court said.

"The Court finds reasonable, lawful and proper the policies of both Hospitals whereby they limit the privilege of referring patients for radiological and laboratory services to health care practitioners who are appropriately and fully licensed in Ohio as medical physicians, osteopathic physicians, dentists, or podiatrists, who have been granted medical staff membership of clinical privileges in accordance with the procedures set forth in the medical staff bylaws of such Hospitals.

"The Court would further find that the judgments and classifications made by the governing board of the respective Hospitals are not arbitrary or capricious and the Court will not substitute its judgment for that of the governing body, medical staff or administration of a hospital," the court concluded.—*Fort Hamilton-Hughes Memorial Hospital Center v. Southard*, Case No. CV79-05-0416 (Ohio Ct. of Common Pleas, April 15, 1981).

Courtesy of *The Citation*, July 1, 1981.

Patient Fails to Comply With Indiana Medical Malpractice Act

A physician and his associates were entitled to summary judgment in a malpractice action against them because the patient failed to comply with the Indiana Medical Malpractice Act, an Indiana appellate court has ruled.

The patient claimed that summary judgment should not have been granted because she relied on incorrect information supplied by the Indiana

Department of Insurance. At the time the cause of action arose, the physician was a health care provider under the Indiana Medical Malpractice Act.

As a result, the patient was required to present her complaint to a medical review panel before she could commence an action in court. The summary judgment for the physician was affirmed.—*Whitaker v. St. Joseph's Hospital*, 415 N.E.2d 737 (Ind. Ct. of App., Jan. 29, 1981)

Courtesy of *The Citation*, June 15, 1981.



AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

We Have a New Look!



MARTHA STOUT is a life-long resident of Muncie and a graduate of Purdue University, where she earned a B.S. degree in Chemistry. She is the widow of Dr. Francis E. Stout, a Muncie gynecologist. She is the mother of three daughters and two sons.

Martha has consistently been involved in both civic and medical auxiliary affairs. She has served as president, treasurer and program chairman of the Delaware-Blackford County Medical Auxiliary at various times.

She is a member and past president both of Alpha Chapter, Psi Iota Xi (a national philanthropic sorority) and of the Muncie Alumnae Club of Pi Beta Phi. She has served on committees of the United Fund, the YWCA, the Ball Memorial Hospital Women's Auxiliary and the Symphony League of the Muncie Symphony. She also has

Meet the Editor



Mrs. Francis E. Stout (Martha)

lent her support to the Finance Committee of the St. Francis of Assisi Newman Center at Ball State University, where the multi-purpose auditorium is named in memory of her late husband.

An avid collector of antiques and oriental rugs, Martha also enjoys golf, tennis, travel, bridge, needlepoint and PEOPLE. (I might add that we *all* enjoy Martha!) She regaled us at the summer Board meeting with a recount of her trials and tribulations in dealing with the Post Office and our mailing service!

Congratulations go to her on two counts: First, a great *first* publication! and, second, on being accepted as a participant in this summer's Midwest Writers Workshop—a concentrated writing course at Ball State.

We all feel lucky to have Martha “on board!”

PAIN AND TENSION...

Double fault for weekend warriors

ACE THE ACHE
with

Equagesic[®] (meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and on other information, FDA has classified the indications as follows:

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache. Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under. **PRECAUTIONS:** Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery. Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow CNS stimulants, e.g., caffeine, Metrazol, or amphet-

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions. Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and resubstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

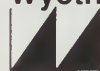
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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Down with pain

Step up to reliable relief

for mild to moderate pain

Wygesic[®]

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE; SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms are usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardialopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analgesic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information (JAMA 237:2406-2407, 1977).

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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To obtain Category 1 credit for this month's article, complete the quiz on Page 681.



Management of the Child With Status Asthmaticus

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ASTHMA IS THE most common chronic respiratory disease of children.¹ Although a better understanding of the pathophysiology of the disease and improved medication have led to better control of its symptoms, every physician who takes care of children must still deal with the child who has an acute asthma attack.

These children may display a spectrum of symptoms ranging from mild wheezing and dyspnea to severe respiratory distress and respiratory failure. Early recognition with prompt and appropriate treatment of the wheezing child will not only decrease the severity and duration of an asthma attack but may also be life-saving.

The purpose of this article is to provide a rational approach to the known asthmatic who presents to the office or emergency room with wheezing. Special emphasis will be

placed on new forms of therapy and new methods of using old drugs.

Initial Evaluation

History

The history of the current attack should be thoroughly investigated. Details of the nature, duration, and severity of respiratory symptoms as well as history of fever, vomiting, diarrhea and adequacy of fluid intake and urinary output should be obtained.

Especially important is an account of current medications. Patients should be able to report accurately medication names, doses and dosing schedules; initial therapy will depend on this information. For instance, if intravenous aminophylline is used in the emergency room, the dose given should be based on when the previous dose of theophylline was given at home. Likewise, interpretation of the theophylline blood level drawn in the emergency room depends on when the blood was drawn in relation to the last dose of theophylline. Corticosteroids often are used for the treatment of asthma, and the physician must be aware if the patient is currently taking either an oral or inhaled corticosteroid or if it has been required in the past. A history of known drug allergies also should be obtained.

The patient or his parents may know which medications have been successful in treating previous asthmatic attacks. Certain patients respond well to aerosolized isotharine or metaproterenol but not to an injection of epinephrine. Thus, to administer three doses of epinephrine to each patient presenting with an acute attack may not be appropriate.

Laboratory Findings

Arterial blood gas analysis is an essential part of the evaluation of the asthmatic patient during an acute attack. Moderate hypoxemia

frequently is present even when the patient does not appear terribly ill. Although they may respond to initial therapeutic measures, patients with severe hypoxemia (PaO_2 less than 60 mmHg) often require hospital admission.

Early in an attack, the typical asthmatic child hyperventilates, and the PaCO_2 is less than 35 mmHg. Thus, the physician should be wary of the wheezing patient with a normal PaCO_2 (35-45 mmHg), since it may be on the rise. Hypercapnia (PaCO_2 greater than 45 mmHg) and acidemia are ominous signs of impending or frank ventilatory failure. Patients presenting with these findings require hospitalization, usually in the intensive care unit.

It also is necessary to know the clinical course of previous attacks. Some asthmatics have infrequent attacks, but rapidly become severely obstructed once they develop symptoms. Others return to the emergency room frequently but never appear terribly ill and clear with minimal therapy. In most cases, a patient coming to the emergency room for the third time in one week should be admitted.

Physical Examination

A thorough physical examination must be performed; however, as with the history certain points must be emphasized. A quick assessment of the patient will allow the physician to judge whether immediate institution of therapy is necessary. The combative or agitated patient should be considered hypoxemic until proven otherwise. Cyanosis is a late sign of hypoxemia. Vital signs should be obtained prior to beginning therapy. Respiratory rate, respiratory effort, pulse rate and temperature should be recorded. Children frequently have mild temperature elevation, but a temperature of greater than 38.5°C should alert the examiner to the possibility of a complicating infection such as

pneumonia. Elevated blood pressure occasionally is seen but does not contraindicate the use of sympathomimetics. Pulsus paradoxus of greater than 10 mmHg should alert the physician to the possibility of impending respiratory failure.

The patient with an acute asthma attack has early airway closure during expiration because of bronchospasm, excess mucus production, and airway edema. Thus, he breathes at a high lung volume and may have an increased anteroposterior chest diameter due to hyperinflation. He recruits accessory muscles of inspiration and may have intercostal, suprasternal and substernal retractions. Expiration is prolonged due to airway obstruction, and accessory muscles of expiration, such as those of the abdomen, are used.

The auscultatory findings during an acute asthma attack are variable. The patient may have only diffuse expiratory wheezes throughout the chest. More often, however, he has inspiratory crackles as well as wheezes. The presence of crackles indicates that the airways are obstructed by secretions as well as by bronchospasm. Occasionally, a patient is unable to move enough air to wheeze. Poor air entry is a sign of marked obstruction and is a signal that immediate therapy is needed.

Digital clubbing rarely is seen in patients with asthma. Cystic fibrosis must be excluded with a sweat test in all purportedly asthmatic patients who have digital clubbing.

Despite institution of therapy, these patients may be extremely unstable, and respiratory function can deteriorate rapidly. Thus, patients must be examined frequently while in the emergency room.

The white blood cell count can be a helpful clue as to the etiology of fever in the febrile asthmatic. To be reliable, blood counts should be obtained before beta-adrenergic

agents are administered, because the latter can mobilize cells from peripheral stores causing a leukocytosis. Appropriate cultures should be obtained in the febrile patient. Although a chest radiograph is not required for every asthmatic seen with a mild attack, it is mandatory for the patient presenting with fever or status asthmaticus. Typically, the radiograph will show hyperexpansion, flattened diaphragms, increased retrosternal air space, a vertical heart, and dark lung fields. However, roentgenographic abnormalities other than hyperexpansion are seen in more than 20% of children admitted to the hospital with asthma.² Pneumothorax and pneumomediastinum are uncommon but potentially serious complications.

Infiltrates are seen frequently on chest radiographs, and they may be difficult to distinguish between pneumonia and atelectasis. Both may be accompanied by fever, tachypnea disproportionate to the severity of the wheezing, and increased white blood cell count. However, it has been our experience that antibiotics rarely are indicated for the patient with status asthmaticus whose chest radiograph demonstrates an infiltrate. Usually, prompt treatment with bronchodilators and proper fluid therapy is all that is required.

Antibiotics should be reserved for the patient who has persistent fever and leukocytosis and who shows progression of infiltrate on the chest radiograph after 24 to 48 hours of bronchodilator therapy. Occasionally, a pneumonic infiltrate may be masked in the patient who presents with dehydration. When the patient is rehydrated, it may be necessary to repeat the chest radiograph, especially if clinical improvement does not occur.

Although points of history and physical findings must be sought, therapy must not be withheld while

TABLE 1: Drugs Used to Treat Acute Asthma in Children				
Drug	Route	Dose	Max. Dose ¹	May Repeat
metaproterenol ^{2,3} (Alupent Inhalant Solution)	Aerosol	0.01 ml/kg (mouthpiece) 0.02 ml/kg (mask)	0.30 ml	× 2 q 20 min.
isoetharine ² (Bronkosol)	Aerosol	0.01 ml/kg (mouthpiece) 0.02 ml/kg (mask)	0.30 ml	× 2 q 20 min.
terbutaline ³ (Brethine, Bricanyl)	SQ	0.01 ml/kg	0.25 ml	× 1 q 20 min.
epinephrine HCl (1:1000) (Adrenalin)	SQ	0.01 ml/kg	0.30 ml	× 2 q 20 min.
epinephrine susp. (1:200) (Sus-Phrine)	SQ	0.005 ml/kg	0.15 ml	none

¹ max. recommended dose should not be exceeded until patient demonstrates tolerance of this dose without toxic side effects.

² aerosol medications diluted with 1.0 - 2.5 ml normal saline. Treatment should last 10-15 minutes.

³ approved only for children ≥ 12 years.

the investigation is in progress. With the possible exception of the white blood cell count, laboratory procedures should be delayed until therapy is initiated. Specifically, the patient should not be sent to the radiology department until he is stable.

Treatment

For ease of discussion, therapy will be divided into the initial approach to the patient in the emergency room and the subsequent management of the patient requiring hospitalization for status asthmaticus.

Emergency Room Therapy

With the exception of the very mild attack, therapy should begin immediately, but rationally. Because it has been shown that 23% of asthmatic children who are asymptomatic are hypoxemic (PaO₂ less than 80 mmHg),³ it should be assumed that the wheezing patient is hypoxemic until proven otherwise. Hypoxemia may cause pulmonary hypertension, increased

airway resistance, altered cerebral function and decreased cardiac contractility. Controlled concentrations of oxygen may be started by the emergency room nurse while taking vital signs and awaiting arrival of the physician. Initiation of oxygen therapy should not be withheld until cyanosis, a late sign of hypoxemia, is evident.

Humidification should be provided by a cascade humidifier or by aerosol or bubble jet nebulizer. Ultrasonic mist should not be administered to the child with asthma since deposition of particles in the lower airway may lead to further airway irritation and bronchospasm.

The beta-2 agonists provide the most rapid bronchodilation for the acute asthma attack⁴ and should be the primary pharmacologic agents used in the emergency room. A summary of these agents and recommended doses is presented in Table 1.

Sympathomimetics are most effective when they are administered by aerosol or subcutaneous injection. The time-honored approach of

giving up to three subcutaneous injections of aqueous epinephrine at 20-minute intervals until there is a good response remains an acceptable method of treatment. However, more specific beta-2 agents are now available and may be used safely and with fewer potential side effects in children.

Aerosol beta-2 drugs should be delivered by air compressors that generate an air flow of 6 to 8 liters per minute (Pulmo-Aide, Maxi-Myst). Nebulizers should deliver 0.2 to 0.3 ml per minute. Administration of aerosol medication by compressor is as effective as with intermittent positive pressure breathing; less patient cooperation is required, and potential side effects of positive pressure administration are avoided. Likewise, metered dose inhalant preparations generally are not effective for children, particularly when distressed.

Nebulized metaproterenol (Alupent Inhalant Solution) may be given and repeated twice every 20 to 30 minutes if the patient's response is inadequate. Although metaproterenol in an inhaled form has not been approved for use in this country by the Food and Drug Administration for children less than 12 years of age, its long term efficacy and safety have been well documented in clinical studies⁵ and years of clinical experience in Europe and Canada. Alternatively, isoetharine inhalation solution (Bronkosol) may be given. Its beta-2 specificity is between that of epinephrine and metaproterenol. Although its onset of action is similar to that of metaproterenol, the magnitude of bronchodilation and duration of action is less than half that of metaproterenol.⁶

The approximate dose of aerosol can be calculated on the basis of the patient's weight and the method of aerosol delivery. Compressor-generated aerosol administered with a mouthpiece delivers roughly twice

the total dose of medication to the lower airway than does a mask. A mask must be employed for the infant and toddler, or the older child who is too ill to use a mouthpiece. When a mouthpiece is employed, the dose of metaproterenol and isoetharine is 0.01 ml/kg (maximum 0.30 ml). When a mask is used, the dose is 0.02 ml/kg (maximum 0.30 ml). Greater than 0.30 ml may be employed (up to 0.75 ml isoetharine and 0.50 ml metaproterenol) if the patient demonstrates he can tolerate

TABLE 2. Starting Aminophylline Dose If Theophylline Requirement Unknown

Age	Infusion rate mg/kg/h ¹
2 - 6 mo	0.5
6 - 11 mo	0.8
1 - 9 y	1.0
9 - 16 y	0.7
smoking adults	0.7
non-smoking adults	0.5

¹ expressed as mg aminophylline (0.85 mg anhydrous theophylline equivalent to 1.00 mg aminophylline).

the higher dose without developing signs of toxicity. The dose is diluted with enough normal saline, usually 1.0 to 2.5 ml, to make the treatment last 10 to 15 minutes.

The patient's heart rate and respiratory rate are monitored before, periodically during, and after therapy. When a mask is used, mouth breathing is employed. When either isoetharine or metaproterenol are used, the dose, no matter how small, must be reduced if the patient develops toxic side effects (tachycardia, palpitation, chest pain, tremor, nausea).

If the physician elects to use an injectable sympathomimetic, terbutaline is preferred to aqueous epinephrine for the patient 12 years of age or older. It provides quantitatively more bronchodilation at the same dose with no additional significant side effects.⁷ The dose, 0.01 ml/kg (maximum 0.25 ml),

may be repeated only once. The dose of epinephrine is 0.01 ml/kg (maximum 0.30 ml), and it may be repeated twice. Recent data suggest that repeated injections of epinephrine provide no more improvement in pulmonary function or symptoms than a single dose of subcutaneous epinephrine or Sus-Phrine.⁸ However, aerosol beta-2 agents appear to provide additional bronchodilation when repeated once or twice.⁴

Repeated examination of the patient is the best way to assess his response to therapy. Another helpful tool is measurement of peak expiratory flow (PEF) with a peak flow meter before and during therapy (Wright Peak Flow Meters, Armstrong Industries, Northbrook, Ill. 60062). This provides an objective measure of the patient's response to bronchodilator medications.

The patient may have a good response to the above measures with clearing of wheezing and significant increase in PEF. However, it should be remembered that the beta-2 agents act only to reduce bronchoconstriction. They have no significant acute effect on airway edema, which is always present if wheezing has occurred for longer than one to two hours, and mild pulmonary function abnormalities may persist for weeks after a single attack. Thus, after release from the office or emergency room, the patient should continue a beta-2 agent and/or theophylline for at least one to two weeks after an attack. If the child has an inadequate response to three doses of epinephrine, metaproterenol, or isoetharine or two doses of terbutaline, he has status asthmaticus and should be admitted.

Hospital Therapy

Therapy of the child hospitalized with asthma represents a continuum of that initiated in the emergency room. Adequate hydration is an essential part of the management of

the child with an asthma attack. Intravenous fluids should be started if the patient presents with severe distress, has significant dehydration or when admission is anticipated. Hydration is necessary to prevent inspissation of secretions and mucous plugging and to assist in expectoration, but must be done with caution. Overhydration, combined with the large negative intrathoracic pressure generated during an asthma attack, may result in fluid shift from the capillaries to the interstitium and alveoli resulting in pulmonary edema and decreased compliance.⁹ Therefore, fluid requirements should be reassessed every eight to 12 hours during the acute attack.

Patients admitted to the hospital because of status asthmaticus should be treated with a continuous infusion of aminophylline,^{10,11} which is started in the emergency room. If the patient's individual requirements for theophylline are not known and he has not received theophylline in the previous 12 hours, he may be given a loading dose of aminophylline (5.0-7.5 mg/kg), which is given intravenously during 20 minutes. The loading dose is then followed immediately by a constant infusion of aminophylline at a dose which varies for patients of different ages (Table 2).¹¹

If, after 30 to 60 minutes, the patient is not improving and has no signs of theophylline toxicity, a second aminophylline bolus of 2.5 mg/kg may be given. In general, an aminophylline bolus of 1 mg/kg will raise the serum theophylline level by 2 mcg/ml.

The loading dose of aminophylline is adjusted down if the patient has taken a theophylline preparation within the previous six to 12 hours. For this patient the loading dose is based on the interval between the last oral dose and the type of theophylline preparation used. Serum theophylline levels of pa-

TABLE 3. Aminophylline Dose Adjustment

Theoph. Level ¹ (mcg/ml)	Bolus Dose ² (mg/kg)	Inf. Rate Change (percent)	Time Infusion Discontinued (h)
< 5.0	7.5	+75	
5.0-10.0	5.0	+25	
10.1-15.0	2.5	+10	
15.1-20.0	—	—	
20.1-25.0	—	-10	1
25.1-30.0	—	-25	2
30.1-35.0	—	-35	4
35.1-40.0	—	-50	6

¹ at steady-steady.

² expressed as mg aminophylline.

tients receiving liquid theophylline preparations, uncoated tablets or liquid filled capsules generally peak at one to two hours post-dose. Serum levels after slow release preparations peak at four to six hours post-dose.

If the patient has had recent therapeutic serum theophylline levels documented while he is receiving an oral preparation, his aminophylline infusion rate may be calculated directly if the oral theophylline preparation is 100% bioavailable. When this conversion is made, it must be remembered that aminophylline is 85% anhydrous theophylline. For example, if a child's serum theophylline level was 16 mcg/ml one month prior to hospital admission while he received a slow release theophylline preparation, 150 mg every eight hours, his aminophylline infusion rate would be determined as follows:

$$\frac{150 \text{ mg theoph}}{\text{dose}} \times \frac{3 \text{ doses}}{\text{d}} = \frac{450 \text{ mg theoph}}{\text{d}}$$

$$\frac{450 \text{ mg theoph}}{\text{d}} \times \frac{1 \text{ mg aminoph}}{0.85 \text{ theoph}} \times \frac{1 \text{ d}}{24 \text{ h}} = \frac{22 \text{ mg aminoph}}{\text{h}}$$

If the aminophylline infusion is to be started when the last oral dose is expected to peak, no initial bolus should be given. Ideally, serum theophylline levels should be obtained before intravenous aminophylline is begun and 12 to 24 hours

after the infusion is started. The constant infusion should be adjusted to maintain levels within the therapeutic range (10 to 20 mcg/ml). For the severely ill patient, the theophylline level should be kept in the high therapeutic range (15 to 20 mcg/ml). Table 3 reveals guidelines for adjusting the aminophylline dose when steady-state serum theophylline levels are known.

Beta-2 agents should be routinely employed in the hospital. Oral or subcutaneous beta-2 agents may be combined with inhaled forms. Inhaled isoetharine or metaproterenol are routinely used every four to six hours but may be used with caution as often as every two hours. For these patients the use of a cardiac monitor is indicated. Tachycardia is the most important sign of toxicity, and these agents should be used with extreme caution if the heart rate is greater than 180 beats/min. Other possible side effects are jitteriness, nervousness, nausea, vomiting and headache.

Parenteral corticosteroids are indicated for patients who are severely hypoxemic, hypercapnic, or those who have received corticosteroids within six months of admission. Although recent evidence suggests they are not helpful during the first 36 hours of therapy since they have no bronchodilator action,¹² corticosteroids probably shorten the recovery phase through reduction of

airway edema and cell membrane stabilization.¹³ A loading dose of hydrocortisone 10 mg/kg (maximum, 300 mg) should be followed by a total daily dose of 10 mg/kg divided every six hours, (maximum, 300 mg/day). When the patient improves or is discharged from the emergency room, prednisone 2 mg/kg/day (maximum, 60 mg/day) given as a single morning dose to reduce adrenal suppression may be administered.

Inhaled cromolyn sodium (Intal) and the inhaled corticosteroid, beclomethasone dipropionate (Beclovent, Vanceril) have no direct bronchodilator effect and are potentially irritating to the airways. These drugs should be discontinued during the acute attack. If the patient with an acute attack is using beclomethasone, this should be replaced with systemic corticosteroids. When the acute attack has resolved, the beclomethasone may be restarted two to three days prior to discontinuing systemic corticosteroids.

Routine measurements of PEF before and after administration of aerosol beta-2 agents provide an objective measure of the patient's response to therapy in the hospital. These may be performed by the nurse or respiratory therapist at the bedside with a portable peak flow meter and recorded on a bedside flow chart. Persistently low or decreasing peak flows with little or no response to aerosol treatments call for additional therapy.

Intravenous isoproterenol (Isuprel) is reserved for the patient who has persistent hypercapnea (PaCO₂ 50 to 60 mmHg) after maximum therapy with aminophylline, beta-2 agents, and corticosteroids. It should be used only in an intensive care setting where continuous cardiorespiratory monitoring and close observation is possible. It has been our experience that with early aggressive management of the acute

attack, especially with the addition of effective and specific beta-2 agents, the need for intravenous isoproterenol with its inherent cardiac side effects has been virtually eliminated.

When the patient begins to improve, frequency of beta-2 aerosol administration may be reduced. Chest percussion and postural drainage may be started when the patient's respirations become comfortable and his cough becomes productive. Percussion and postural drainage should not be done in the acutely ill patient, as it may increase his work of breathing and hypoxemia. In most cases intravenous therapy may be discontinued when the patient has been wheeze-free for 24 hours, provided the patient has an acceptable serum theophylline level.

In the manner that the oral theophylline dose is converted to an intravenous aminophylline dose, the intravenous dose is used to determine the oral theophylline requirement. The calculation is performed as follows:

$$\frac{\text{mg aminoph}}{\text{h}} \times \frac{0.85 \text{ mg theoph}}{1 \text{ mg aminoph}} \times \frac{24 \text{ h}}{\text{d}} = \frac{\text{mg theoph}}{\text{d}}$$

We attempt to use slow release preparations whenever possible, as they provide more constant serum theophylline levels and improve patient compliance. The patient usually is observed in the hospital while he receives oral medications (home dosing schedule) for 24 to 48 hours before discharge. Peak or trough theophylline levels may be obtained two to seven days after oral theophylline is started.

The one to two day period in the hospital provides an ideal opportunity for the physician, nurses and respiratory therapists to provide insight to the child and his parents about asthma, and to assess the response of the child and family to this chronic disease and the required therapy.

It is through better understanding of the pathophysiology of asthma that children and families learn to cope with the frustrating and sometimes frightening acute attacks, and an understanding of the rationale for pharmacotherapy provides the basis for improved compliance.

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The Art of Doing 'Nothing'

DAVID F. WEHLAGE, M.D.
South Bend

THE TRADITIONAL attitude of physicians when offering medical services has been parental or authoritarian. The style in relating to patients has been one of telling, advising, or actively doing. This intervention or "surgical" approach seems to have caused great dissatisfaction in large numbers of physician-patient encounters. Physicians are trained along the same lines that motivated them to choose medicine as a profession—a need to help. The title of this paper is a way of calling attention to the necessity for learning an alternative way of helping people.

All physicians know the inner voice they hear immediately when a patient presents—an inner voice that says, "What do I do?"

This question is heard before the patient is heard; thus, physicians become more occupied with its answer than focusing on "What is the patient telling me about his problem?" and "What else do I need to know to fully understand what or if anything needs to be done?"

Large numbers of patients are found to need no outside advice or intervention once they are properly evaluated. A number are found un-

responsive to physicians' advice or "surgical-medical" modalities, i.e., chronically ill patients, worried-well patients, or unreliable, socially disorganized patients. Likewise, physicians frequently have no clear-cut, definitive idea what to do or say that might be helpful even to patients with true medical or psychosocial problems. This stimulates the fabrication of answers or interventions.

The art of doing "nothing" is essential if physicians hope to assist these patients and offer the understanding, honest relationship most patients desire from physicians.

The art of doing "nothing" is learning to help by *not* doing or advising. It is the ability of the physician to use his personality and

presence as the therapeutic agent—not a scalpel, a medication, or a parental-like command. It is the wisdom to recognize the ultimate therapeutic value of taking a history or recognizing that the *evaluation is the treatment*. It is physicians' consummate ability of "being there" for the patient without feeling uneasy, helpless, insecure or inadequate. An element of the art can be a part of all physician-patient encounters even if there is a definitive medical problem with definitive medical treatment. The following issues are involved with helping by doing "nothing."

Get the Patient's Story

This involves simply adhering to the statement patients usually are afraid to say—"Hear me out." Phy-



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sicians need to recognize that getting the full story usually does not have to be done immediately in one session and, in fact, cannot be obtained in one session.

Physicians' attention and desire to listen personally for the full story brings instantaneous relief from the helplessness and concern patients experience. No definitive answers or medical procedures are necessary for this type of relief.

Avoid Asking, 'What do I do?'

Physicians must operate initially on the premise a patient must help himself before the physician can help. To elucidate what the patient's attitude is with regard to helping and doing for himself, the following three questions should always be used in evaluative interviews:

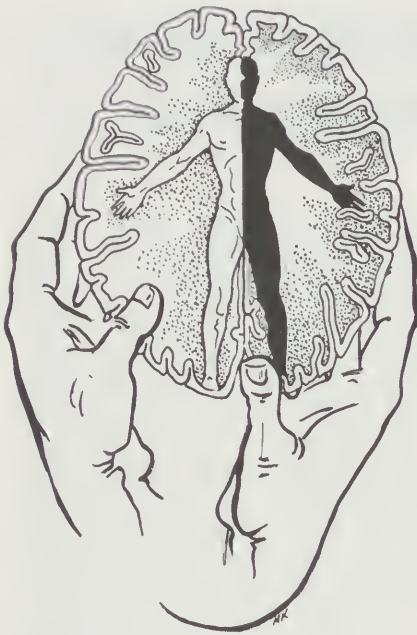
- What makes your condition better?
- What makes your condition worse?
- What do you feel explains your condition?

Physicians' interest in the answers to these questions is a vote of confidence for the patient that his knowledge and concern about his condition is valued. The patient often is already well on his way to relieving or solving his own problem and may only need reassurance concerning the effectiveness of his approach. Physicians need not feel they are the only source of helpful information or suggestions.

Maximize the Fact of Your Presence

The expectation of being helped is powerful and when in the presence of the physician, a patient feels safe. Physicians' calm and attentive attitude in the midst of patients' fear and turmoil is essential.

The ability to listen to the patient while helping him tell his story with facilitating techniques is important; for example, "You mentioned your (heart, father, husband, sadness, etc.) and I would like to know more



about that" or "What else would you like to tell me?"

Listening does not involve total silence for physicians, but verbalizations should be oriented to helping patients more fully tell their own story.

Invite Patients to Return for Another Visit

The primary help physicians have to offer patients is the opportunity to return for another visit to expand on telling their story and for the evaluative physician to continue learning more about the patient's medical and/or personal story. "There is a lot you have told me I would like to hear more about. Would you like to come in again to explain it more fully?" This one statement implies to the patient he has been heard, cared about as a friend, and will gain understanding for his condition.

Offering repeat sessions as short as 20 minutes may be the most beneficial thing physicians can "do" for patients. As previously mentioned, no patient's story needs to be gathered in one long session. A series of short sessions is better.

Reassure the Patient About the Benefit of Time

Patients can be reassured about the physician doing "nothing" through only offering a return visit by saying: "My experience with this is that it will probably improve with time and with what you have already been doing, but I would like to see you again if you wish." The healing aspects of time are an important premise of the do "nothing" approach.

Doing "nothing" may be interpreted negatively by some patients as physicians withholding "curative" services. However, a majority of patients react more negatively to "doing too much too soon" as if physicians have not listened, possibly made a mistake through hasty judgment, or just tried to get rid of them. Patients may ask questions like, "What do I do, Doctor?" or, "What are you going to do, Doctor?" Answering with one of the following direct but honest responses will suffice:

"I am not sure I know but . . . *

"I do not know what to suggest but . . . *

"I do not think that is something I as a physician can help you with, but . . . *

"That is something you may have to answer for yourself, but . . . *

"* . . . I would like to see you again soon to find out more fully the nature of your problem and keep in contact with you to see if anything else might be necessary."

Physicians should be warned to ask themselves the question, "Is what I am doing (surgical procedure, writing a prescription, advice) to relieve my helplessness by needing to do something or is it truly to benefit a known, treatable, fully evaluated condition of the patient?" Physicians need to be especially courageous by being honest in answering and able to use the doing "nothing" approach more comfortably.

Use of a Local Anesthetic Agent to Decrease Arteriogram Pain

RICHARD J. NOVEROSKE, M.D.
Evansville

IT IS A COMMON experience for elderly patients to have severe pain in their lower limbs during an arteriogram after injection of a bolus of contrast medium into the lower abdominal aorta. Sometimes the pain is so severe that the patients are given a general anesthetic.

Some time ago I was brainstorming this problem with another physician. I felt that most people thought of this pain from the contrast medium as a chemical irritant phenomenon. It occurred to me that it could also be thought of as an electrical phenomenon. The contrast medium is one fluid passing through another fluid, blood. Both have ions; electrons can be stripped off of one and collected in the other; a moment later a balancing discharge of electricity takes place, and the patient suffers the pain of an electric shock. Similarly, clouds passing in the sky are fluids passing through other fluids. Electrons are stripped off; charges accumulate, and lightning occurs to even the charge. The situation seemed analogous.

There seemed to be additional evidence; the pain is less when a contrast medium that ionizes less strongly is used, such as a meglu-

mine salt, rather than a sodium salt of the iodinated anion. I've used meglumine salts for years to decrease the pain. We learned years ago that sodium salt contrast media, when injected into the ascending limb of the thoracic aorta for a cerebral arteriogram, often produced electroshock-like symptoms in the patients being examined, and sodium salts of contrast media have been virtually abandoned for cerebral arteriography for some time.

Ten years ago I tried to ground the injected contrast medium by connecting a heavy-duty battery jumper cable to cold water pipe at one end, with the other end of the cable connected to the metal flange on the end of the arterial catheter. I tried this arrangement with two patients, but the results were inconclusive. I was never able to pursue it further because a little later a great deal of concern arose about everything in the x-ray room having a common ground. If there wasn't a common ground in the x-ray room, there could be a "ground loop" phenomenon. The "ground loop" phenomenon can cause a tiny difference in the amount of current to the heart in some patients, and kill the patient if there isn't much resistance—as with a pacemaker. I was persuaded years ago not to pursue the electrical approach any further.

I was ruminating about these prior experiences with a younger physician, and he said quickly and brilliantly, "Why not inject a local anesthetic with the contrast medium?"

"Yes, why not?" I answered. "I'll try it."

So I tried this technique on a cou-

ple of patients, and the results were good.

Case No. 1

This patient was a 90-year-old man with a body mass of 56 kilograms. He was referred for a right femoral arteriogram. Using the Seldinger technique, I put a catheter in the right common iliac artery and made a couple of power injections of Conray, and a couple of series of delayed films to display the lower femoral, popliteal, and trifurcation arteries.

The first series of films showed segmental narrowing of the distal femoral artery with a considerable delay in the flow of the blood and Conray through the femoral artery. There were some collaterals. The second set of films was made after 15 seconds delay, using an injection of Conray 70cc and Xylocaine, 1%, 10cc. This addition of Xylocaine markedly reduced the pain in the lower limb. The patient did not cry out with pain, moan, and move his leg during this second injection.

The 15-second delay helped us to visualize the popliteal area. The segmental narrowing of the distal femoral and popliteal arteries were noted. There was filling of the anterior tibial artery and the posterior tibial artery. Filling of the peroneal artery was delayed. Both the peroneal artery and the posterior tibial artery were reduced in size.

Case No. 2

This patient was a 63-year-old man with a body mass of 71 kilograms. I did an iliac, right femoral and popliteal, and left femoral and popliteal arteriograms on him. I used the Seldinger technique to ad-

The author is certified by the American Board of Radiology and is a member of the Radiological Society of North America, the International College of Surgeons and the American Roentgen Ray Society.

vance the catheter into the lower abdominal aorta and position it. A test injection of Conray showed good position. Then a power injection and a series of films of the pelvis and hip areas was made.

There was good opacity of the distal abdominal aorta and its bifurcation; the bifurcation was widely patent. There was a little arteriosclerotic disease of the common iliac arteries. The left internal iliac artery was completely occluded. The origin of the right internal iliac artery was stenosed, although flow through the common and external iliac arteries was good on each side. The patient had a great deal of pain in both lower limbs and moved the trunk of his body uncontrollably after the injection of the first bolus of pure Conray.

Then two injections of Conray were made with Xylocaine added. Two series of films were made to display the right femoral, popliteal, and trifurcation arteries of the right

leg. There was no body movement during these injections and no complaint of pain. There was only an occasional grimace or wince of the patient's face during the time that the injected Conray moved down into the lower limbs.

Two series of films were also made with two injections of Conray with added Xylocaine to show the left femoral, popliteal, and trifurcation arteries.

The amount of Xylocaine, 1%, added to each of the following four injections after the first injection, produced good control of pain. In the second and third injections, 10cc of 1% Xylocaine was added. In the fourth and fifth injections, 5cc of 1% Xylocaine was added. The Xylocaine not only diminished the pain in this patient, but it also converted an irregularly irregular pulse, probably due to atrial fibrillation, into a sinus rhythm of about 108 beats per minute. There was no shock.

Discussion

The amount of local anesthetic agent used for such a procedure must be watched. Further refinements upon the doses that I used in these two patients are possible.

The location of the injection of the anesthetic agent with the contrast medium is also important. Injections downstream from the brain and heart are safe. And anyway, that's where the pain problem arises—from injections in the lower abdominal aorta or more distally in the arterial tree. Further upstream the contrast medium is diluted out more by the larger flow of blood, and pain isn't that much of a problem.

There may be others who are using local anesthetics for injection of contrast medium into the lower abdominal aorta or iliac arteries to prevent severe pain, but I am not aware of it. Perhaps this experience will suggest further improvement in pain control.

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

ACHROMYCIN

AUREOMYCIN

Category: Antibiotic Antibiotic
Brand Name: Achromycin, Lederle Aureomycin, Lederle
Generic Name: Tetracycline HCl Chlortetracycline HCl
Dosage Forms: Capsules, Injection, Ophthalmic, Topical
Ophthalmic, Topical

CYTOXAN

CYTOSAR

Category: Antineoplastic Antineoplastic
Brand Name: Cytosar, Mead Johnson Cytosar, Upjohn
Generic Name: Cyclophosphamide Cytarabine
Dosage Forms: Tablets, Injection Injection

Lumbar Microdiscectomy

DANIEL F. COOPER, M.D.
HENRY FEUER, M.D.
Indianapolis

LOW BACK, HIP AND LEG pain remain a major cause of patient disability. Conservative treatment is indicated in the majority of cases and well over 80% can be successfully treated with bedrest, low back exercises, epidural steroid injections and bracing.

Bonafide ruptured lumbar discs make up a small percentage of cases of low back and leg pain. When a ruptured disc is the etiology of the patient's problems and no improvement occurs with conservative measures, treatment alternatives are somewhat limited. In the United States, one treatment modality, intradiscal chymopapain, has been terminated because of reported serious neurologic sequelae, leaving disc surgery as the major form of definitive treatment.

The results of lumbar disc surgery vary greatly, dependent on patient selection and perhaps with the technique of the surgical procedure. The use of the operating microscope has opened new possibilities for the management of disc surgery, and the technique of lumbar microdiscectomy has become standardized.

Articles^{1,2,3} lauding the value of microdiscectomy have been published in the neurological literature, and the Indianapolis Neurosurgical Group has been evaluating this technique. The results have been gratifying. Our group has now performed 100 cases of microdiscectomy over a period of two years.

The authors are associated with the Indianapolis Neurosurgical Group, Inc., Indianapolis, Ind.

The long-term results are not yet available from our series, but five-year results have been published in large recent series.^{1,2,3}

The operation involves making a one-inch incision in the skin over the appropriate lumbar spines, initially identified by x-ray. Minimal muscle stripping is then done through this small incision. With the use of the operating microscope, the ligamentum flavum is removed from the interlaminar space. There usually is no need for bony removal. The facet joint capsule is left completely intact. The nerve root is identified and requires only minimal retraction. There is no need for removal of epidural fat. Some mi-

nor vessels may require bipolar coagulation. Major nerve root retraction should not be necessary. Micro-cottonoids for control of bleeding rarely are needed. The disc is identified and removed without major incisions into the disc space. Usually only the amount of material easily removed with micro-rongeurs is taken out. After irrigation the incision is closed with two chromic fascial sutures and two or three skin sutures. The patient may be up in the immediate post-operative period and usually leaves the hospital within two or three days.

The advantage of this type of surgery is that needless stripping of the muscle and fascia from the spine

Aggregate Statistics for the First 50 Consecutive Microdiscectomies With 6-Month to 2-Year Follow-up

	Total Number Patients	Per cent
TOTAL PATIENTS	50	100%
Total patients cured at first surgery and returned to full pre-disc status.	40	80%
Total patients with still some residual pain post-operatively but returned to full pre-pain status over period of time.	4	8%
Total patients not returned to previous work but resumed all previous activity (jobs all related to heavy lifting).	3	6%
Patients with continued poor results after disc surgery. (2 compensation patients)	3	6%
Reoperation—same side, same space. No recurrence found. (1 of poor result)		2%
Reoperation—opposite side, same disc. (Complete pain relief)		2%

and lamina is avoided, thereby removing one of the major causes of the post-operative painful back and muscle spasms. There is no bony removal, and the joint capsule remains intact, again avoiding one of the major complications of the failed back surgery. With minimal nerve root retraction, nerve irritability is reduced. Since visualization is superb through the microscope, no removal of any tissue in the epidural area is needed and, thus, post-operative scarring may be decreased.

The amount of disc removed still remains controversial, with some surgeons taking as much disc as possible and others removing only the protuberant parts. Either treatment can be done quite adequately through this micro-incision. The surgeons who remove only small amounts of disc feel that one of the

major causes of recurrence is the large incisions into the posterior longitudinal ligament, and that taking more disc material out causes further collapse of the disc space and additional pressure which may cause recurrence.

Our series of 100 microlumbar discectomies is small but the results are gratifying. Aggregate statistics of our first 50 microdiscectomies followed for six months to two years appear in the accompanying table.

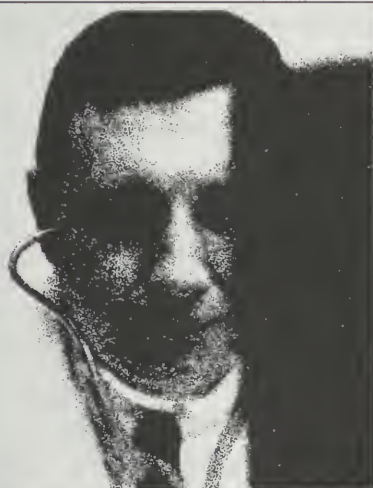
Two large series are available, one involving 500 patients and the second involving 477 patients who have undergone microdiscectomy.^{1,2} The follow-up period has ranged up to five years. The results for these studies parallel our study quite closely.

Microdiscectomy is a conservative approach to the persistent symptoms of lumbar disc disease

when routine conservative therapy fails. Lumbar microdiscectomy causes minimal disturbance of tissue, and patients are less likely to have the persistent paravertebral back pain than with a routine disc. Scar tissue around the nerve root should be less. Since no retraction of the nerve root is needed, arachnoiditis and epidural fibrosis may be decreased. Microdiscectomy is effective for the treatment of sciatica and should be considered in most lumbar discectomies.

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PUBLIC HEALTH NOTES

The pain and anguish of parents who suffer the loss of a child is immeasurable under any circumstance, but when the loss is the result of "sudden infant death syndrome" (SIDS) the trauma is even more acute.

Defined by Marie Valdes-Dapena, M.D., as "a sudden and unexpected death of a baby who seemed well, whose death remains unexplained after an autopsy and review of circumstances," the SIDS victims are infants at high risk. Doctor Valdes-Dapena is a pediatric pathologist at the University of Miami (Florida) School of Medicine, and her research shows that approximately 15% of the deaths of babies who die suddenly can be explained through autopsy. The remaining 85% of the deaths cannot be determined through autopsy.

We have not yet developed a means of singling out the potential SIDS victims, but some factors have been obtained by studies of those who have perished, and there seem to be some common denominators of those at risk. These are: low socio-economic origin, prematurity or low birth weight, male-Black or American Indian, infant of a multiple birth, mother less than 20 years of age, and/or lack of prenatal care.

Researchers also have collected evidence that the majority of infants who die unexpectedly and inexplicably frequently have one or more of the following characteristics: greater incidence of low Apgar Scores, increased requirement for neonatal resuscitation, increased incidence of gavage feeding, less active physically, weak suck, abnormal reflexes, jitteriness, less intense response to environmental stimuli, and/or abnormal cry.

There also is some evidence to indicate that there is a relationship between a "near-miss" sudden infant death and the Sudden Infant Death Syndrome. Apnea is one of

SIDS

the symptoms of a near-miss infant. Infants with prolonged apnea are placed on monitoring systems in their own homes.

Because of the difficulties experienced by families in adjusting to the loss of an infant through SIDS, various kinds of health personnel are attempting to assist family members during the stressful period immediately following such a loss. Physicians, of course, deal with the problem on a patient-physician basis, but responsibility in the community for dealing with these services has been delegated to local public health nurses.

SIDS continues to be the leading cause of death in infants under one year of age despite the impressive reduction in the overall neonatal and postnatal infant mortality rates. Using the national average ratio of two sudden infant deaths per 1,000 live births, Indiana can predict that 174 babies will die in 1981 of SIDS. The prevalence rate for Indiana is 1.4 per 1,000 live births, according to the National Center for Health Statistics. The discrepancy between Indiana's rate and the national average suggests that Indiana is either under-reporting or, for some unknown reason, Indiana is a low SIDS risk state.

A sudden infant death is a devastating tragedy for families who are confused and unaware of the facts about the syndrome. Consequently, they blame themselves for not taking better care of the infant. The feelings of guilt are often intensified by the lack of knowledge about SIDS on the part of those who come in contact with the SIDS family, and tend to reinforce the family's unwarranted recrimination over the death.

Until recently, little had been

done in Indiana to assist these families in the prevention and treatment of the disabling guilt reaction. A statewide case management program was developed by the Indiana State Board of Health with the support of the Indiana Association of Public Health Physicians, Inc., Indiana; Association of Pathologists, Inc.; and the Commission on Forensic Science. The program has four major components: 1) understanding of SIDS through education, 2) use of autopsy to confirm the cause of death, 3) use of the term Sudden Infant Death on the death certificate, and 4) the availability of counseling and referral services to parents.

The intent is to assure that whoever comes in contact with the family during the hours, days, or weeks following the death has the knowledge and skills to contribute in a positive way during the grief period.

The autopsy provides important information that may enable others to help the family with its grief. Physicians should strongly urge that an autopsy be performed to exclude causes other than SIDS. Physician counseling provides the greatest support and benefit to the family by reassuring them that their reactions are normal and that SIDS could not have been predicted or prevented, that the cause is unknown, and that the infant did not suffocate or suffer.

If counseling must be extended, the public health nurse is in a good position to follow up on the family because of her/his knowledge and experience.

For extended help, beyond the physician and public health nurse, there are SIDS parents who may telephone or visit the home of the new victims. Group meetings by parents who have gone through the tragedy offer a different kind of support.

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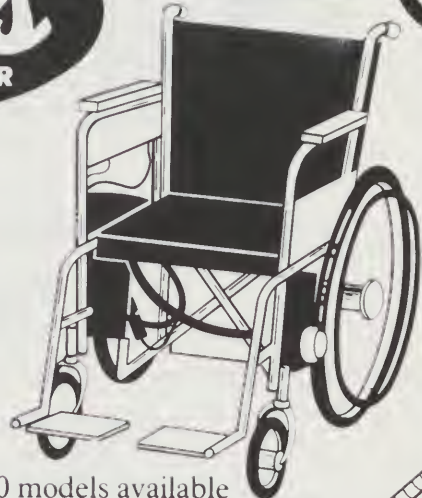
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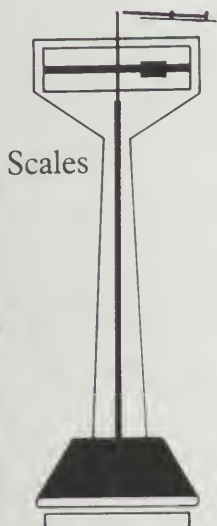


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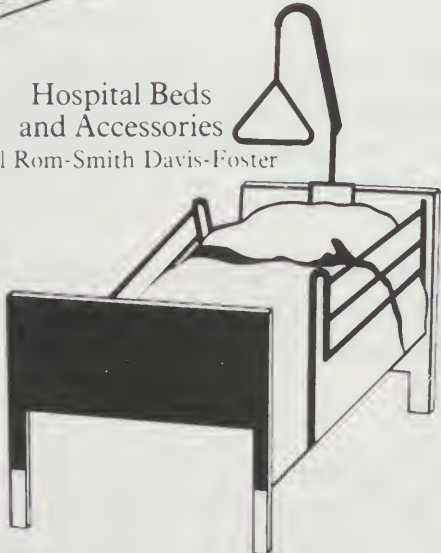


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The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

*"for religious, charitable, scientific,
literary or educational purposes"*

CME QUIZ

Status Asthmaticus

CONTINUED FROM PAGES 663-668

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

1. Early airway closure occurs during the acute asthma attack because of:
 - a. bronchospasm
 - b. excess mucus production
 - c. airway edema
 - d. all of the above
 - e. none of the above
2. Common radiographic findings of acute asthma include:
 - a. infiltrates
 - b. pneumothorax
 - c. pneumopericardium
 - d. pneumomediastinum
3. The most effective bronchodilator for use in the emergency room is:
 - a. aminophylline
 - b. beta-2 agents
 - c. corticosteroids
 - d. cromolyn sodium
4. Early signs of respiratory failure in the asthmatic child with respiratory distress include:
 - a. somnolence
 - b. pulsus paradoxus of greater than 10 mm Hg
 - c. cyanosis
 - d. none of the above
5. Initial intravenous aminophylline dosing depends on:
 - a. patient's weight
 - b. type of oral theophylline preparation the patient is taking
 - c. time of last theophylline dose
 - d. all of the above
 - e. none of the above
6. The following test(s) should always be performed prior to instituting therapy for acute attack in the emergency room:
 - a. chest radiograph
 - b. white blood cell count
 - c. serum electrolytes
 - d. all of the above
 - e. none of the above
7. Early symptoms of aminophylline toxicity include:
 - a. sleeplessness
 - b. nausea
 - c. convulsion
 - d. all of the above
 - e. none of the above
8. All of the following are contraindicated during the acute asthma attack except:
 - a. inhaled cromolyn sodium
 - b. inhaled beclomethasone
 - c. inhaled metaproterenol
 - d. oxygen administered with ultrasonic mist
9. All of the following indicate improvement of the patient's condition except:
 - a. increase of peak expiratory flow measurement from 75 to 140 L/minute
 - b. increase of PaCO_2 from 33 to 43 mm Hg
 - c. decrease of pulse rate from 180 to 120 per minute
 - d. change in nature of cough from nonproductive to productive
10. An appropriate oral dose of sustained-release theophylline for a 40 kg child with a steady state theophylline level of 15 mcg/ml on a continuous aminophylline infusion of 45 mg/hr would be:
 - a. 350 mg every 8 hours
 - b. 300 mg every 8 hours
 - c. 225 mg every 8 hours
 - d. 120 mg every 8 hours
 - e. none of the above

September CME Quiz Answers

Following are the answers to the CME quiz that appeared in the September 1981 issue of THE JOURNAL: "Arthritis in Childhood," by Murray H. Passo, M.D.

- | | |
|------|-------|
| 1. a | 6. c |
| 2. b | 7. d |
| 3. c | 8. a |
| 4. c | 9. c |
| 5. d | 10. d |

Answer sheet for Quiz: (Status Asthmaticus)

- | | |
|--------------|---------------|
| 1. a b c d e | 6. a b c d e |
| 2. a b c d | 7. a b c d e |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d e | 10. a b c d e |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Nov. 10, 1981 to the address appearing at the top of this page.

Notes from

The Royal College of Surgeons of England

AUSTIN L. GARDNER, M.D.
Indianapolis

The deaths of two giants in surgery is noted and the contributions of Sir James Paterson Ross and Lord Brock will be long remembered. Both were presidents of the Royal College of Surgeons. Sir James made observations about peripheral embolization in conjunction with a cervical rib and performed a dorsal sympathectomy on King George VI. He had a distinguished tenure in the Chair of Surgery at Saint Bartholomew.

Lord Brock will be remembered for his work on pulmonary stenosis. His surgical techniques were witnessed by legions of surgeons from all over the world. Lord Brock was an inspiring figure due to his position at the summit of the world of surgery, but his facade of sternness was discarded for a patient in pain. He was very interested in Sir Astley Cooper and wrote his biography. An Indiana graduate who studied under Lord Brock, Dale Porter of Dayton, related a story of the surgeon making his way to Brompton Hospital in the fog to care for an emergency and when the fog and the traffic became too much of an impediment, Lord Brock "packed it up" and walked home.

* * *

"*Pulmonary Embolectomy Re-evaluated*" by David B. Clarke of Birmingham considered the history and indications for the operation and concluded that it was important to continue to try, as Friedrich Trendelenburg urged in 1912 after 12 failures. Dr. Clarke cited a mortality of 54% and advocated operations *without* cardiopulmonary bypass.

"*Bleeding Oesophageal Varices: The Management of Shunt Reject*" by George Johnston of Belfast presented the results of sclerotherapy and oesophageal transection in 230 patients. Although the mortality rate remained significant, the decreased incidence of encephalopathy speaks well for this procedure. The presentation was a Hunterian Lecture and John Hunter's observation of an autopsy of a cirrhotic patient and the subsequent work of Eck, Vidal, Blake-more, and others was reviewed.

* * *

R.I.H. Whitlock of Dundonald, Ireland, presented a series of terrible facial injuries resulting from bomb blasts due to civil unrest. The Charles Tomes Lecture for 1979 commemorated contributions in dental surgery. The effect of rubber bullets, low velocity missiles, and shotgun and high velocity bullets were presented graphically and the management detached with careful analysis of factors effecting the outcome.

"Out of the gloom a voice said unto me 'Smile and be happy; things could be worse.' So I smiled and was happy and, behold, things did get worse."

* * *

The list of deaths of members included the name of the ex-professor of surgery of St. Mary's Hospital, William Tait Irvine, which was a sad commentary of the promising life of a lonely man.

The information in this review is based on the January 1981 issue of the Annals of the Royal College of Surgeons of England.

BOOK REVIEWS

Review of Medical Physiology, 10th Edition

William F. Ganong, M.D. Copyright 1981, Lange Medical Publications, Los Altos, Calif. 628 pages, \$17.

The 10th edition of *Review of Medical Physiology* by William F. Ganong, chairman of the Department of Physiology, University of California, San Francisco, lives up to the illustrious standards of its predecessors. In common with other Lange Medical Publications, the text is revised frequently—in the case of the present volume, every two years.

As the author points out, the text provides a concise summary of human physiology—really core material, which the student can supplement with readings in current texts, monographs, and reviews. Clinical medicine is not forgotten in the examples employed to illustrate physiologic points. The text contains some 600 pages, with a helpful appendix and section on definitions. It is appropriately illustrated, mostly with line drawings.

The binding, like that of all Lange publications, is unusually sturdy, with heavy, washable paper covers that appear plasticized. The text can be enthusiastically recommended as the core text for medical and other graduate students and also for every practicing physician who desires a usable reference on physiology and who wants more than a casual knowledge of the subject.

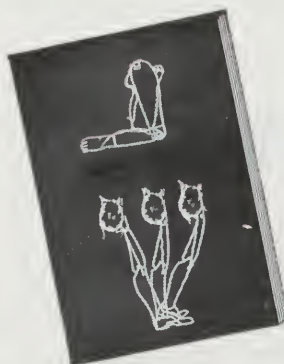
W. D. SNIVELY, JR., M.D.
Evansville
Internal Medicine

DOUBLEDAY has released a new edition of *The Changing Years*. The author is Madelaine Gray, a professional writer who knows the menopause as a result of a surgical menopause at age 44. She covers the signs, symptoms, discomforts and fears, and includes the newer medical findings and attitudes. A prominent gynecologist has described the book as "the best book on the menopause." \$13.95, 288 pages.

THE UNITED STATES Pharmacopeial Convention has published *About Your Medicine*, a book designed to inform and educate the public concerning prescription drugs. The American Society of Internal Medicine has endorsed the publication and recommends its use to patients, with the thought that the language of the book will be less apt to upset the patient than would be the case with mandatory patient package inserts. The USP has granted permission to physicians for the photocopying of appropriate pages for distribution to patients.

An Easier Way: A Handbook for the Elderly and Handicapped has just been published by the Iowa State University Press. It is designed to help those who want to remain independent and in their own homes. The author, Jean Vieth Sargent, has devoted much of her personal time to helping persons with household tasks. The type face is easy to read, and illustrations are clear-cut and large. 220 pages, \$10.50.

"*Emergency Care and Transportation of the Sick and Injured*", Third Edition, has just been published by the American Academy of Orthopaedic Surgeons. It may serve as a text book for EMTs and as a reference manual for emergency care procedures. It contains 464 pages and nearly 400 new medical photographs and illustrations. To round out the text's educational value, a student workbook that poses questions on important points from each chapter, and an answer book that gives the answers, also have been updated to form a complete learning system. The text and workbook set sell for \$14. Separately the text is \$12 and the books are \$4 each.



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This booklet has been designed for those physicians whose practice includes amputation. *Limb Prosthetics* gives ready reference for each site of amputation as well as the prostheses recommended for each site.

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FUTURE FILE

Evansville Family Practice Seminar

The Annual Family Practice Seminar of St. Mary's Medical Center, Evansville, will meet on Thursday, Nov. 5. Subjects covered include "Sexually Transmitted Diseases," "Infectious Diseases," "Use of Antibiotics on an Ambulatory Basis" and "Immunization for Infectious Diseases."

Write to Dr. W. T. Spain, 3700 Washington Ave., Evansville 47750, for copy of program and other information. The course is approved for four hours credit with the AAFP and the AMA.

Conference on Athletic Injuries

The second annual combined physician-therapist conference on "The Evaluation and Current Treatment of Athletic Injuries: The Lower Extremity Kinetic Chain" will be conducted Dec. 3-5 at the Hyatt Regency O'Hare, Chicago.

Seventeen hours of AMA Category 1 credit will be awarded for the session, sponsored by the American Physical Therapy Association, in association with the Medical College of Virginia School of Physical Therapy.

To register, contact Kathy Johnson, Continuing Medical Education, Box 48, MCV Station, Richmond, Va. 23298.

CME Meeting in Hawaii

A CME program entitled "Behavioral Medicine and Primary Care in the 1980s" will be presented in Honolulu Dec. 4-11.

The program, approved for 16 hours of AMA Category 1 credit, will be presented by Professional Institutes and the University of South Carolina School of Medicine. Some of the techniques involved in the diagnosis and management of coronary artery disease, habit control, stress and pain will be discussed.

Contact Jeri McClain, USC School of Medicine, Office for Academic Affairs, Columbia, S.C. 29208. Tel: (803) 777-7470.

Endocrine Seminar in Evansville

"The Endocrine Seminar—Part II" will deal with the parathyroid gland on Thursday, Oct. 15 at St. Mary's Medical Center, Evansville. It is approved for four hours credit with the AAFP and the AMA. Contact Dr. W. T. Spain, (812) 479-4000, for details.

Health Law Conference

"Critical Issues in Health Law" will be the subject of a two-day conference conducted by the American Society of Law & Medicine, on Thursday and Friday, Nov. 19-20, at the Washington Hilton Hotel, Washington, D.C.

Fee for members is \$180, for non-members \$200, which includes two lunches and course materials. Register by writing and sending payment to the Society at 520 Commonwealth Ave., Boston 02215. Tel: (617) 252-4990.

Thyroid Disease Workshop

A "Workshop on Thyroid Disease," sponsored by the American Thyroid Association, will be conducted at Columbia University, New York City, on Thursday and Friday, Nov. 5-6. It carries 16 hours credit in Category 1. The fee is \$250.

To obtain program or register write to Dr. Elizabeth C. Gerst, 630 W. 168th St., New York, N.Y. 10032.

Gresham Memorial Conferences

The First Annual Edwin L. Gresham Memorial Perinatal Conferences will be held at the Hyatt Regency, Indianapolis, Nov. 18-20.

"The Critically Ill Newborn" will be discussed Nov. 18 and "Fetal Metabolism" will be discussed Nov. 19-20. A panel of internationally recognized speakers will be featured.

For information, write to James Lemons, M.D., Riley Hospital for Children, 1100 W. Michigan St., Indianapolis 46223.

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CME Meeting in Indianapolis

A regional CME meeting sponsored by the American College of Physicians will be conducted in the Hilton Hotel in Indianapolis on Nov. 20. All physicians are privileged to attend. For full information write Walter J. Daly, M.D., Emerson Hall, Room 317, 1100 W. Michigan St., Indianapolis 46223.

Cancer Meeting in Houston

"Cancer 1981/2001—An International Colloquium" is a conference sponsored by the University of Texas M.D. Anderson Hospital and Tumor Institute at Houston to mark the 10th anniversary of the National Cancer Program.

The meeting will be held on Nov. 10-14 at the Shamrock Hilton Hotel in Houston. Direct questions to Lisa Long or Joan Chin at (713) 792-3030.

Michigan CME Courses

The University of Michigan Medical School has announced its 1981-82 calendar of CME programs:

- Nov. 3-5: Real-Time Ultrasound.
 - Nov. 6-7: Parenteral Nutrition.
 - Nov. 12-13: Clinical Oncology.
 - Nov. 20: Basic Burn Care.
 - Jan. 31-Feb. 5: Family Practice Update.
 - Feb. 10-11: Basic Cardiac Life Support Provider Course.
 - Feb. 12-14: Advanced Cardiac Life Support Provider Course.
 - Feb. 13: ACLS Provider Recertification.
 - Feb. 15-19: Emergency Medicine.
 - March 10-12: Clinical Chemistry.
 - March 14-17: Infectious Diseases.
 - March 18-20: General Surgery: Vascular Grafts.
 - March 26-27: Current Concepts in Clinical Microbiology: Antibiotic Susceptibility.
 - March 31-April 2: Hematology Review.
 - April 19-23: Family Practice Review.
 - April 26-27: Ophthalmology Conference.
 - April 30-May 1: Burn Rehabilitation.
 - May 6-7: The Phlebotomy Team: Technical and Management Perspectives.
 - May 14-15: Nuclear Radiology.
 - May 17-21: Advances in Internal Medicine.
 - May 25-27: Real-Time Ultrasound.
 - June 2-4: Blood Banking.
 - June 8-9: Basic Cardiac Life Support Provider Course.
 - June 10-12: Advanced Cardiac Life Support Provider Course.
 - June 11: ACLS Provider Recertification.
- Contact Office of Continuing Medical Education, Towsley Center, University of Michigan Medical School, Ann Arbor, Mich. 48109. Tel: (313) 764-2287.

I.U. Lists CME Courses

The following CME courses are offered by the Indiana University School of Medicine:

- Nov. 2-4: Hospital Planning for Critical Care.
 - Nov. 4: Orthopaedics for the Family Physician.
 - Nov. 5-7: Garceau-Wray Orthopaedic Lectures.
 - Nov. 14: Anesthesia Update.
 - Nov. 18-20: Edwin L. Gresham Memorial Conference: Critically Ill Newborn and Fetal Metabolism.
 - Nov. 20: American College of Physicians, Indiana Chapter.
 - Dec. 2: Office Orthopaedics.
 - Dec. 3: Clinical Rheumatology.
- For information, contact Division of Continuing Medical Education, Indiana University School of Medicine, 1100 W. Michigan St., Indianapolis 46223. Tel: (317) 264-8353.

Neurology Seminar in Chicago

"Neurology for the Non-Neurologist" is the title of a CME session at the Chicago Marriott Hotel, Dec. 9 to 11. Rush-Presbyterian-St. Luke's Medical Center, 600 South Paulina, Chicago, 60612, will conduct the meeting. AMA Category 1 credit has been granted for 20 hours. Additional info may be obtained by writing or calling Marilyn Jones, (312) 942-7095.

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NEWS NOTES

Seven States Enact Safety Laws For Child Auto Passengers

Thus far in 1981 seven states have either enacted a "child passenger protection law" for the first time or amended an existing law.

Generally, the term "child passenger protection law" refers to state legislation mandating that children below a specified age be properly protected, through use of child passenger restraint systems meeting certain standards, when being transported in motor vehicles.

Data on the state laws were collected by the American Medical Association's Department of State Legislation and are published in the mid-year issue of the AMA's **STATE HEALTH LEGISLATION REPORT**. The AMA has a formal position in support of state legislation dealing with child passenger safety.

Tennessee, the first state to enact such a law (1977), amended its statute to delete language which permitted a child covered under the terms of the law to be "held in the arms of an older person riding as a passenger in the motor vehicle," as an alternative to placement in a child passenger restraint system.

Tennessee now permits the child to be held in an adult's arms in a moving auto only while a mother is nursing an infant or "attending to its other physiological needs." Children under four years of age otherwise

must be placed in an approved restraint system.

Rhode Island amended its statute to make it apply to children three years of age and under riding in either the front or back seat of the auto. The previous law had required the use of restraint systems only for children riding in the front seat.

Kansas has enacted a statute which requires every parent or legal guardian of a child under the age of two years to provide for the protection of such child by properly using an approved child passenger safety restraining system. The Kansas State Secretary of Transportation is required to develop a program of public education to promote the use of child safety systems.

Minnesota has enacted a statute which requires every parent or legal guardian of a child under the age of four years to install safety equipment. West Virginia, North Carolina and New York also have enacted safety laws.

Penalties for failure to comply with the laws vary from verbal warnings to fines.

Business-Medicine Coalition Formed

The ISMA has joined with five Indiana corporations to form the Indiana Business-Medicine Coalition to discuss the cost of medical care and its impact on business and industry.

Dr. Alvin J. Haley, ISMA president and chairman of the coalition, explained that, with industry's share of national health expenditures expected to surpass \$60 billion this year, the corporations felt it would be sound management practice to join with ISMA in trying to solve problems affecting their health care costs.

Coalition members are Ball Corporation, Muncie; Miles Laboratories, Elkhart; Cummins Engine Company, Columbus; Eli Lilly and Company, Indianapolis; and Central Soya, Fort Wayne. Dr. B. L. Weisenberger, medical director of Cummins Engine, is co-chairman of the coalition.

Employee absenteeism, climbing hospital costs and inappropriate use of hospitals have been identified by the coalition as the major problems affecting corporate health care costs.

Malpractice Insurance Deductibles

Medical Economics says malpractice insurance with deductibles may become more common now that St. Paul, the nation's largest medical liability carrier, offers it. Taking the deductible can result in savings of up to 25% on the basic \$100,000/300,000 liability coverage.

If, for example, the physician would normally pay a premium of \$10,000, he or she would save \$500 with the minimum \$5,000 deductible, \$1,000 with the \$10,000 deductible, and \$2,500 with the \$25,000 deductible, the highest that St. Paul offers.

Are You Moving?

If so, please send change of address to Membership Dept., ISMA, 3935 N. Meridian St., Indianapolis, IN 46208, at least six weeks before you move.

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Address _____

City _____

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Here and There . . .

. . . *Dr. Steven R. Young*, an Indianapolis anesthesiologist, discussed "Cardiac Surgery in the 1980s" at the Marshall County Heart Association's annual dinner last month.

. . . *Dr. James A. Crossin* of Indianapolis has been elected secretary of the Indiana chapter, American College of Surgeons.

. . . *Dr. Alvin J. Haley*, ISMA president, has been chosen by Governor Robert D. Orr as a non-voting member of the newly created Governor's Commission on Directions in Mental Health. *Dr. William T. Paynter* of Indianapolis is among the voting members.

. . . *Dr. Glenn J. Bingle* of Indianapolis has been elected chairman of the Hoosier Heartland March of Dimes.

. . . *Drs. A. Alan Fischer, Andrew C. Offutt and Hugh K. Thatcher* of Indianapolis are among the members of a newly appointed task force to study health care of the aging and aged in Indiana. The task force was formed by *Dr. Ronald G. Blankenbaker*, state health commissioner.

. . . *Dr. Bryce B. Rohrer* of Walkerton discussed "You and Alcoholic Beverages" in August as part of a continuing lifestyle series of seminars for the public in LaPorte.

. . . *Dr. Otis R. Bowen*, former Indiana governor, has been elected to the board of the Leukemia Society of America, Indiana Chapter.

. . . *Dr. Louis T. Need*, an Indianapolis family physician for 50 years, has announced his retirement from practice.

. . . *Dr. Robyn K. Goshorn* of Franklin has been elected president of the Johnson County Chapter of the American Diabetes Association.

ABC Cites Fort Wayne Program

The American Blood Commission has announced its recognition of the Fort Wayne regional blood system. The commission has now cited 28 such regional blood service associations in its plan for encouraging coordinated regional management of the nation's blood supplies. Other regions are participating in the commission's program and are in the stages preliminary to full compliance with the standards.

AAP Announces 3 Assignments

The American Academy of Pediatrics announces committee assignments: *Dr. Morris Green*, Indianapolis, Chair of Provisional Committee on Psychosocial Aspects of Child and Family Health; *Dr. John R. Poncher*, Valparaiso, member of Nominating Committee; and *Dr. Virginia Wagner*, Indianapolis, member of Committee on Early Childhood, Adoption and Dependent Care.

. . . *Dr. Wayne Schrepferman*, a Hamilton family physician since 1954, has announced his retirement from private practice.

. . . *Dr. Guy F. Perry* of Columbus discussed "MS in the Workplace" in August during a meeting of the Southern Indiana Multiple Sclerosis Fellowship.

. . . *Dr. Ralph U. Leser*, an Indianapolis internist for more than 50 years, has retired from private practice.

. . . *Drs. Mark I. Singer and Eric Blom* of Indianapolis have been presented the Olin E. Teague Award by the Veterans Administration for having devised a prosthesis valve for patients who have lost their vocal cords to surgery.

. . . *Dr. Philip R. Myers* of Edwardsburg has been named vice-chairman of the advanced life support test committee, Indiana Emergency Medical Services Commission.

. . . *Dr. George H. Rawls*, an Indianapolis surgeon and ISMA assistant treasurer, has been appointed to serve on the Medical Licensing Board of Indiana.

Revised Videolog Available

The 1981 revised edition of *The Health Sciences Videolog* has been released by Video-Forum of New York. The Videolog was first published in 1977 as a reference guide to videotape and cassette programs available in the health science field in the U.S. It now carries more than 7,000 program listings available from 198 various distributors. It is available for \$49.50 from Video-Forum, Dept. R, 145 E. 49th St., New York, N.Y. 10017.



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NEWS NOTES



Former POWs Get Disability Break

Former prisoners of war who were incarcerated for as short a period as 30 days may now have certain disabilities accepted as having been incurred in service without having to furnish medical proof of that fact, according to the Veterans Administration.

The 30-day incarceration period (it used to be six months) is contained in legislation recently enacted by Congress, which also waives the two-year period following service during which certain psychological disorders must manifest themselves in order to be service connected.

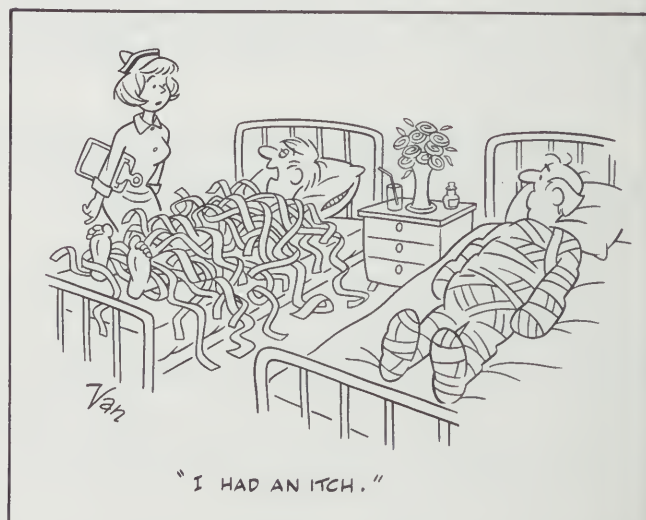
These and other changes are contained in the "Prisoner of War Health Care Benefits Act of 1981," which was signed into law by President Reagan on August 14.

Hospitals Seeking HMO Patients

As HMO enrollments grow, some hospitals that now limit the number of beds they make available to HMO patients are actively seeking HMO affiliation. According to the California Medical Association, one-fifth of the state's population is enrolled in prepaid plans, and more than a third of California hospitals already have contracts to care for HMO members.

USP Adds Geriatric Position

A geriatric position has been added to the Committee of Revision of the U.S. Pharmacopeial Convention for the 1980-1985 term. An Expert Advisory Panel on Geriatrics will be established. A study will be conducted on the special informational needs of both the practitioner and the patient in relation to geriatric drug use.



Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

Aldred, Allen W., Fort Wayne
Arney, Amos, Michigan City
Babcoke, Gary A., Chesterton
Barnes, Gilbert H., Carmel
Bennett, Benjamin D., Kokomo
Boen, Bradley N., Indianapolis
Bridge, Barton C., Lafayette
Carpenter, Pramod K., Evansville
Caudill, Rodney C., Yorktown
Christen, Samuel E., Fort Wayne
Christie, Marvin C., Indianapolis
Clutter, Robert E., Indianapolis
Cowen, Richard L., Evansville
Dolan, Patrick A., Indianapolis
Guin, Jere D., Kokomo

Haas, Ray A., Greenfield
Hamang, Peter M., Hobart
Jarrett, David G., Indianapolis
Jontz, Richard L., Fort Wayne
Keucher, Thomas R., South Bend
Kleifgen, William A., Fort Wayne
Lazzara, Joseph V., Vincennes
Link, William C., Bloomington
Lorber, Arthur, Carmel
Mazdai, A.J., Connersville
McCallister, Larry L., Muncie
Nichols, Harold G., Indianapolis
Odulio, Benito V., Mitchell
Painchaud, Lionel A., Muncie
Panszi, Jose G., Muncie

Parks, Herbert E., Indianapolis
Patel, Shodhan L., Crown Point
Rausch, James M., Fort Wayne
Reeck, Claude C., Indianapolis
Rice, Ronald B., Indianapolis
Santare, Vincent J., East Chicago
Schoon, Paul G., Indianapolis
Schwartz, Jack, Munster
Simmons, James E., Indianapolis
Smith, Ray C., Indianapolis
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OBITUARIES

Roy L. Smith, M.D.

Dr. Smith, 88, a retired Indianapolis urologist, died Aug. 15 in a Columbus, Ind., retirement home.

He was a 1917 graduate of Indiana University School of Medicine and was an Army veteran of World Wars I and II.

Dr. Smith was certified by the American Board of Urology and was a member of the American Urological Association and the American College of Surgeons. He also was a member of the Fifty Year Club of American Medicine and the ISMA Fifty Year Club.

Gordon B. Wilder, M.D.

Dr. Wilder, 84, a retired Anderson internist, died June 24 at Community Hospital, Anderson.

He was a 1925 graduate of Indiana University School of Medicine and was a veteran of World War I. He retired from practice in 1969.

Dr. Wilder was a former AMA delegate of the Indiana State Medical Association and a former trustee of ISMA's Eighth District. He was enrolled in the ISMA Fifty Year Club in 1975. He was a Fellow of the American College of Physicians.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

Joseph Finneran, M.D.
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John Riley
Robert M. Hollowell
John Twyman
Albert M. Donato, M.D.
James Blackmore
Goethe Link, M.D.
Mrs. Beth Bowen

Wyndham H. Nutter, M.D.

Dr. Nutter, 71, a Rushville physician, died May 23 at Rush Memorial Hospital, Rushville.

He was a 1940 graduate of Indiana University School of Medicine and served with the Army during World War II.

Dr. Nutter was a former president of the Rush County Medical Society.

Raymond E. Nelson, M.D.

Dr. Nelson, 70, a South Bend physician, died Aug. 21 at his home.

He was a 1935 graduate of the University of Kansas School of Medicine and was an Army veteran of World War II.

Dr. Nelson was a member of the American College of Emergency Physicians and the American Academy of Family Physicians.

John W. Karn, M.D.

Dr. Karn, 60, a South Bend anesthesiologist, died Aug. 21 at his home.

He was a 1944 graduate of the University of Chicago Pritzker School of Medicine and was an Army veteran of World War II.

Dr. Karn was an anesthesiologist at St. Joseph's Medical Center, South Bend. He was a member of the American Society of Anesthesiologists.

Edwin R. Eaton, M.D.

Dr. Eaton, 68, a retired Indianapolis surgeon, died Aug. 23 at Community Hospital, Indianapolis.

He was a 1940 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Eaton was a general surgeon in the emergency room at Community Hospital from 1966 until his retirement in 1980. He was a member of the American College of Surgeons, American College of Chest Physicians, and American College of Emergency Physicians.

George H. Overpeck, M.D.

Dr. Overpeck, 85, a retired Alexandria physician, died Aug. 1 at Westminster Village.

He was a 1930 graduate of Indiana University School of Medicine and was an Army veteran of World War I.

Dr. Overpeck, who retired five years ago, had practiced in Alexandria 44 years. Before becoming a physician he had been a school teacher and principal. He was enrolled in the ISMA Fifty Year Club last year.

COMMERCIAL ANNOUNCEMENTS

THE INDIANA STATE Department of Public Welfare has 3 positions available for physicians to work in a pleasant office atmosphere; no patient contact, no malpractice insurance required; on Indiana license of eligibility is required; competitive salary; regular working hours; excellent fringe benefits. Contact Personnel Director, Indiana State Department of Public Welfare, 701 State Office Building, 100 N. Senate Ave., Indianapolis 46204. Phone (317) 232-4746.

REAL ESTATE For Sale: Wonderful opportunity for a doctor to own his office. By widow. Ground floor, fully equipped physician's office. Ample parking. White aluminum siding, aluminum storm windows and screens. Fully insulated. New gas furnace. Valuable real estate and location. On contract, reasonable down payment, 10% interest. Call 219-295-8880 or 219-294-3162.

OFFICE SPACE AVAILABLE: Winona Memorial Hospital's Clinic Building has prime office space now available at 3202 N. Meridian St., Indianapolis. 1560 sq. ft. available, including four offices each with their own exam room. A receptionist and waiting area of 375 sq. ft. also available. Easy access to all Winona outpatient services. For more information, contact Mr. E. Rondell Wright at 317-927-2223.

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BOARD CERTIFIED: AP & CP. Experienced. Seeking position of asst. pathologist. Contact K. Sumikoshi, M.D., 6007 N. Sheridan, Chicago, Ill. 60660. (312) 975-3136.

EMERGENCY MEDICINE—Eastern Indiana: Clinical position available for moderate volume emergency department. Excellent guaranteed income, flexible scheduling without on-call duty, paid professional liability insurance. For details, send credentials to John Kutchback, 970 Executive Parkway, St. Louis, MO 63141; or call toll-free, 1-800-325-3982.

RETIRED PEDIATRICIAN—Let's presume that you are still interested in your field but have given up active practice. We are much in need of your wisdom and experience as advisor and counselor to our youth health magazines (8 of them) which feature health and life improvement at each level of elementary school. Do get in touch. Contact Cory SerVass, M.D., 317-636-8881.

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WHAT'S NEW?

CONTINUED FROM PAGE 634

UPJOHN has received FDA approval for marketing a new enteric-coated form of active base erythromycin—called E-Mycin 333 mg tablets. The new tablets are to be taken every eight hours and achieve and maintain blood antibiotic levels essentially the same as E-Mycin 250 mg every six hours. Better patient compliance is expected with the T.I.D. schedule.

LITTON MEDICAL ELECTRONICS has a new modular microprocessor-based patient monitoring unit that will be introduced in November. It is designed for one-on-one patient care in hyper-acute intensive care areas. It has video display screens, 24-hour data storage and retrieval and alpha-numeric free text entry capability. It is named Servomed™ SMC 108. It does not require a centralized computer.

THE ORTHOPEDIC PRODUCTS DEPARTMENT of the 3M Company has a new brochure on battery-powered and air-powered surgical drivers for small-bone procedures. The 3M Mini-Driver Systems are designed for wiring, pinning, drilling, sawing, reaming and screwdriving. The battery-powered system is portable. The complete system is sterilizable with steam or gas.

MEDEC, INC. announces the release and distribution of their latest patient education video program, **LOW CHOLESTEROL DIET**. This video program gives the general principles as well as the specifics of the commonly prescribed cholesterol lowering diet and most importantly instructs the patient in what he or she CAN eat. Increasing polyunsaturated fat intake, decreasing saturated fat and cholesterol intake as well as weight control are all emphasized.

AMKO MANUFACTURING announces a new Hofmeister endometrial biopsy curette which is especially designed for endometrial sampling. It has finer and less traumatic teeth than the Novak curette. Available in 2, 3, and 4 mm sizes in stainless steel.

THE 3M COMPANY has a self-adhering waterproof drape designed to provide controlled absorbency with an impermeable bacterial barrier. It is called Steri-Drape No. 1099 Blue Fabric Utility Drape, measures 22½ X 25 inches, and is constructed of absorbant, nonwoven rayon laminated to a plastic film.

STUART PHARMACEUTICALS has received FDA approval for marketing of Tenormin® (atenolol). It is a new drug that serves as an anti-hypertensive. It is the only beta blocker available in the United States that combines both one-tablet-a-day dosage with cardioselectivity. It will be stocked in all pharmacies by the last part of October.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral form* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion. The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

Use in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Do not use in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins, i.e., dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs. Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam/Roche), i.e., phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2 1/2 mg once or twice daily, increasing gradually as needed or tolerated).

The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

INJECTABLE: Although promptly controlled, seizures may return; re-administer if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic

procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam/Roche) therapy and are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualized for maximum beneficial effect.

ORAL—Adults: Anxiety disorders, relief of symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; acute alcohol withdrawal, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2 1/2 mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2 1/2 mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcoholic withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children, administer I.V. slowly; for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available. Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. **Infants (over 30 days) and children (under 5 years),** 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). **Children 5 years plus,** 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levorotatory or metaraminol for hypotension. Dialysis is of limited value.

Supplied: Tablets, 2 mg, 5 mg and 10 mg, bottles of 100 and 500; Tel-E-Dose[®] (unit dose) packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10. Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject[®] (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.



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Examine Me.

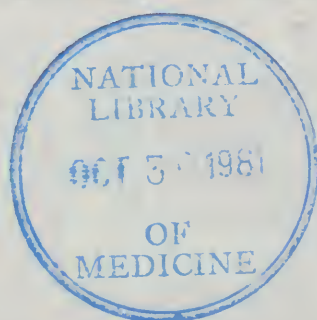
During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse" and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and th

If you examine and experience, you'll come that I *am* a safe and effective used wisely.




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November 1981 • Vol. 74 • No. 11

The JOURNAL

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COLORADO STATE CAPITOL — DENVER

INSIDE:
A stained-glass portrait
of Indiana's Dr. John Evans
appears in the dome of
Colorado's Capitol Building.
Why? See "Museum Notes."

**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM®

Ⓢ

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT



Please see summary of product information on the following page.

VALIUM® (diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500; * Prescription Paks of 50, available in trays of 10. * Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701

†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

WHAT'S NEW?

MEAD JOHNSON is introducing a new dosage form of Duricef (cefadroxil) for the treatment of specific respiratory infections in infants and children. Duricef Oral Suspension is available in orange-pineapple flavor, in three dosage strengths, 125 mg per 5 ml, 250 mg per 5 ml, and 500 mg per 5 ml.

EDUCATIONAL RESEARCH PRODUCTS announces an improved type of dental floss. The new product, Super Floss, combines a section of conventional floss with a larger diameter brush made of small nylon filaments which compress to a diameter no larger than conventional floss when introduced into a narrow space and expand and function like a brush in wider spaces. A clinical study with patients using conventional floss on one side and Super Floss on the other side of the mouth shows that Super Floss removes more dental plaque and debris.

SCHERING announces FDA approval for marketing of VANCENASE™ Nasal Inhaler, used to treat seasonal and perennial rhinitis. The product is chemically known as beclomethasone dipropionate and is available on prescription. It is approved for adults and children over 12.

MILES PHARMACEUTICALS has FDA approval of Mezlin™ (mezlocillin sodium), a member of a new class of semisynthetic penicillins—acylureidopenicillins. Clinical trials show that Mezlin™, for intravenous and intramuscular use, is effective against a broad spectrum of pathogens, including gram-positive bacteria, gram-negative bacterial strains generally resistant to penicillin, and anaerobes. Klebsiella and Pseudomonas species are included. Bacterial resistance has been rare. It has achieved wide acceptance in Europe over the past four years.

CHILDREN WITH ASTHMA may be aided in adjusting to the disease by use of a book published by American Lung Association. Titled *Superstuff*, the "cut apart and use," 86-page book teaches young persons about asthma, helps them to relax and control their disease. Copies for asthmatic children may be obtained from the Association. Contributions are requested, when receiving the book, to aid in defraying the expense. No child who needs the book will be deprived, however, for financial reasons.

CONTINUED ON PAGE 764

News of what is new in the medical supply industry is composed of abstracts from news releases by manufacturers—of pharmaceuticals, clinical laboratory supplies, instruments and surgical appliances—and book publishers. Each item is published as news and does not necessarily constitute an endorsement of a product or recommendation for its use by THE JOURNAL or by the Indiana State Medical Association.

The JOURNAL

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ABOUT THE COVER

This stained-glass portrait of Dr. John Evans of Attica, Ind., is one of 16 that ring the base of the Colorado Capitol Building in Denver. Just why a 19th Century Indiana doctor is memorialized in Colorado is explained by Dr. Charles A. Bonsett in this month's Museum Notes.

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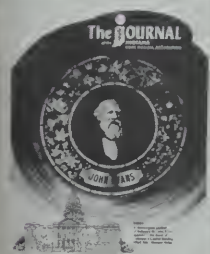
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FUTURE FILE

Hawaii Sports Medicine Course

Northwestern University Center for Sports Medicine will sponsor a Sports Medicine Postgraduate Course to be conducted at Maui, Hawaii March 8-12. The course coincides with the Maui Marathon. It will carry 25 hours Category 1 CME credit.

Full information may be obtained by writing Bates Noble, M.D., 303 E. Chicago Ave., Room 2-163, Chicago 60611.

International Cancer Congress

The 13th International Cancer Congress will meet in Seattle, Washington Sept. 8-15, 1982. For program and registration info write Congress Operations Office, Fourth and Blanchard Bldg., Suite 1800, Seattle, Wash. 98121.

Cancer Symposium in Texas

"Perspectives on Genes and the Molecular Biology of Cancer" is the topic of the 35th annual symposium on Fundamental Cancer Research to be held at the Shamrock Hilton Hotel, March 2 to 5, 1982. For full information write or phone Stephen C. Stuyck, M. D. Anderson Hospital and Tumor Institute, 6723 Bertner Ave., Houston, Texas 77030, (713) 792-3030.

Five-Day Colorado Seminar

"Current Concepts in Pain Management" and "Current Concepts in Office Management, with Emphasis on 1981 Tax Law" will be the subjects of a seminar at Steamboat Springs, Colorado, Dec. 20-25, Feb. 14-19 and July 18-23. The programs are arranged to allow ample time for skiing or other activities.

For full particulars write to Current Concept Seminars, Inc., 9400 S. Dadeland Blvd., Suite 300, Miami, Fla. 33156, or call (305) 666-0401.

NIH Conference in Maryland

"Defined Diets and Childhood Hyperactivity" is the subject of a National Institutes of Health Consensus Development Conference to be held Jan. 13-15. The meeting will be in Masur Auditorium, Clinical Center, Building 10, Bethesda, Md.

For information write or call Bettygail Fulcher, Prospect Associates, 11325 Seven Locks Road, Suite 221, Potomac, Md. 20854, (301) 983-0535.

Radiology for the Non-Radiologist

The University of South Florida is sponsoring "Radiology for the Non-Radiologist," a medical meeting to be held in Innisbrook, Florida Jan. 18-22.

The meeting offers 25 AMA Category 1 credit hours. M.D. spouses who are nurses may obtain nurses' contact hours.

For details, write to Edward A. Eikman, M.D., VA Hospital, 13000 N. 30th St., Tampa, Fla. 33612.

Polytomography of the Temporal Bone

A two-day symposium on Polytomography of the Temporal Bone will be given under the auspices of the Wright Institute of Otology at Community Hospital, Indianapolis, March 6 and 7.

The symposium meets the criteria for 12 AMA Category 1 credit hours. Fee for the course is \$300.

Direct inquiries to the Wright Institute of Otology, Inc., Community Hospital of Indianapolis, 1500 N. Ritter Ave., Indianapolis 46219. Tel: (317) 353-5679.

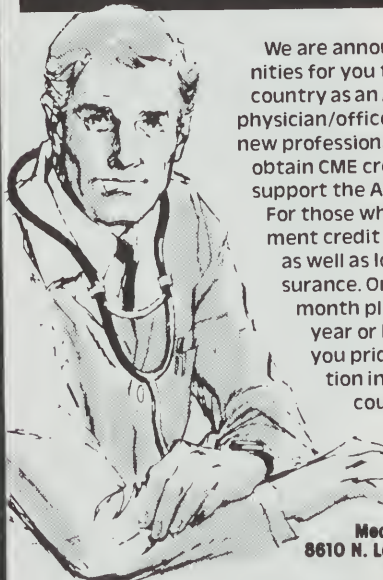
Suicide and the Family

A symposium on "Suicide and the Family" will be held at the Beverly Wilshire Hotel, Beverly Hills, Calif. Feb. 27.

Nationally renowned physicians will examine how suicide affects various nationalities. The meeting is sponsored by the Institute for Studies of Destructive Behaviors and the Suicide Prevention Center of Los Angeles.

For information, contact Nann Miller, 800 W. First St., Los Angeles, Calif. 90012. Tel: (213) 620-1215.

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CME Meeting in Switzerland

"Advances in Diagnostic Imaging" is the subject of a medical meeting scheduled for March 21-28 at the Palace Hotel in St. Moritz, Switzerland.

The meeting, which carries 20 hours of Category 1 credit, is sponsored by the University of South Florida. Special air and ground packages are available to registrants.

Write to Edward A. Eikman, M.D., VA Hospital, 13000 N. 30th St., Tampa, Fla. 33612.

San Diego State Seeking Applicants

Applications for August 1982 are now being accepted by the Graduate School of Public Health, San Diego State University from obstetricians and pediatricians interested in a career in the field of maternal and child health.

The training program lasts nine months.

Address inquiries to Helen M. Wallace, M.D., Division of Maternal and Child Health, Graduate School of Public Health, San Diego State University, San Diego, Calif. 92182.

International Cancer Symposium

The Fifth International Symposium on the Prevention and Detection of Cancer is scheduled to meet in Sao Paulo, Brazil, on May 16 to 20, 1982. CME credit hours will be arranged for U.S. participants.

For program, abstract forms and travel and accommodations information write to: Medical Congress Coordinators, 1212 Avenue of the Americas, New York, N.Y. 10036, or phone (212) 840-0110.

G-I Cancer Conference in Florida

The National Conference on Gastrointestinal Cancer will be conducted by the American Cancer Society Dec. 8-10 at the Fontainebleau Hilton Hotel, Miami Beach, Fla.

The meeting is open to all physicians. There is no registration fee. Advance registration is requested. The program is acceptable for 13 prescribed hours by the AAFP and 13 hours Category 1 with the AMA.

For details, write to Nicholas G. Bottiglieri, M.D., 777 Third Ave., New York, N.Y. 10017.

Neurology Seminar in Chicago

"Neurology for the Non-Neurologist" is the title of a CME session at the Chicago Marriott Hotel, Dec. 9 to 11. Rush-Presbyterian-St. Luke's Medical Center, 600 South Paulina, Chicago, 60612, will conduct the meeting. AMA Category 1 credit has been granted for 20 hours. Additional info may be obtained by writing or calling Marilyn Jones, (312) 942-7095.

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*Data on file Parke-Davis Marketing Research Dept.
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TUCKS® Pre-Moistened Hemorrhoidal/Vaginal Pads

Hemorrhoids and other anorectal uses—TUCKS extra-soft cloth pads allow for the gentlest possible application to tender, inflamed, hemorrhoidal tissue. TUCKS are effective cleansing pads for everyday personal hygiene. Used on outer rectal areas, they remove residue that can bring on more irritation. Pads are premoistened with 50% witchhazel, 10% glycerin USP and de-ionized purified water USP which acts as a cooling, soothing lotion to help comfort sensitive anorectal tissue.

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ANUSOL-HC® SUPPOSITORIES

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ANUSOL-HC® CREAM

Rectal Cream with Hydrocortisone Acetate

Caution: Federal law prohibits dispensing without prescription.

Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.

Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy

See "WARNINGS"

Pediatric Use

Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

Dosage and Administration: Anusol-HC Suppositories—

Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.

How Supplied: Anusol-HC Suppositories—boxes of 12 (N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

Anusol-HC Cream—one-ounce tube (N 0071-3090-13) with plastic applicator.

Store between 59°-86°F (15°-30°C).
1089G010

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FUTURE FILE

Conference on Athletic Injuries

The second annual combined physician-therapist conference on "The Evaluation and Current Treatment of Athletic Injuries: The Lower Extremity Kinetic Chain" will be conducted Dec. 3-5 at the Hyatt Regency O'Hare, Chicago.

Seventeen hours of AMA Category 1 credit will be awarded for the session, sponsored by the American Physical Therapy Association, in association with the Medical College of Virginia School of Physical Therapy.

To register, contact Kathy Johnson, Continuing Medical Education, Box 48, MCV Station, Richmond, Va. 23298.

Clinical Cytopathology Program

The 23rd Postgraduate Institute for Pathologists in Clinical Cytopathology is to be given at Johns Hopkins University School of Medicine March 22 to April 2, 1982.

The program is designed for pathologists certified or qualified by the American Board of Pathology or its international equivalent. A loan set of slides will be sent to each participant for home-study during February and March. Credit hours are 125 in Category 1. Apply before Jan. 27, 1982.

Write to John K. Frost, M.D., 610 Pathology Bldg., Johns Hopkins Hospital, Baltimore 21205.

5-Day Lung Pathology Course

"Lung Pathology" will be the subject of a five-day comprehensive CME program sponsored by the American College of Chest Physicians at the Ramada The O'Hare Inn in Des Plaines, Illinois, March 29 to April 2.

It is accredited for 28 credit hours in Category 1. Tuition for ACCP members is \$550, for nonmember physicians \$600. For further info write to the College at 911 Busse Highway, Park Ridge, Ill. 60068.

Colorado Ski and Learn Seminars

Three CME seminars dealing with management enrichment for the health professional will be conducted this winter in popular ski areas of Colorado.

The seminars, arranged by M.E.P., An Education Corporation, will be conducted by noted doctors and management specialists. They comply with IRS rules to make trip expenses deductible. The seminars are scheduled for Snowmass, Colo., during the weeks of Dec. 19 and March 20; and for Vail the week of Feb. 20.

For brochure and lodging information, contact M.E.P., 906 Cooper Ave., Glenwood Springs, Colo. 81601. Tel: (800) 525-3402.

Harvard Offers Two-Week Course

"Program for Chiefs of Clinical Services" will be conducted in the form of an intensive residential course by the School of Public Health of Harvard University Jan. 17-30, 1982.

The two-week course covers a systematic study of critical management issues. The case method of instruction, which actively involves participants in problem analysis and decision-making, encourages participant contributions as a significant and integral part of the learning process. The fee, which covers room, board, tuition and teaching materials, is \$2,700.

Write to Executive Programs in Health Policy and Management, Harvard School of Public Health, 677 Huntington Ave., Boston 02115, or call (617) 732-1142.

Annual Pathology Meeting

The annual meeting of the U.S.-Canadian Division of the International Academy of Pathology will be held March 1-5, 1982, at the Sheraton Boston.

The Maude Abbott Lecture, entitled "Soft Tissue Tumors in the 19th and 20th Century," will be delivered by Dr. Raffaele Lattes on Tuesday, March 2.

Further information about the meeting and courses may be obtained from Dr. Nathan Kaufman, secretary-treasurer, U.S.-Canadian Division, International Academy of Pathology, 1003 Chafee Ave., Augusta, Ga. 30904.



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MEDICAL MUSEUM NOTES

CHARLES A. BONSETT, M.D., Indianapolis



Indiana Physician Memorialized in Colorado

THE HOOSIER WAY of saying things is not always the way it's done in other parts of the country. For example, recently in Denver, Colorado, I asked directions for locating the State House. "Never heard of it," was the reply I received from a native. I soon learned that what I wanted was how to find the *Capitol Building*.

The Indiana State Capitol Building in Indianapolis is commonly designated as the State House, and until recently, an office building immediately across the street (Senate Avenue) was identified as the State House Annex. (This building, incidentally, was the home of In-

diana University School of Medicine from 1908 to 1919).

My interest in the Capitol Building at Denver relates to Dr. John Evans of Attica, Indiana. I had been Novemberold that a portrait of Dr. Evans, done in stained glass, was located in the Capitol's dome. The Colorado Historical Society provided the Museum a color transparency of this several years ago (and this is reproduced on the front cover).

It was difficult for me to visualize how the circular shape of the portrait could fit into a dome-shaped structure, hence my reason for going to Colorado's "State House." The

photographs on this page show Dr. Evans' location in the dome. When viewed from inside the building, Evans' portrait is found to be one of a group of 16, which ring the dome's base. The exterior view of the building shows the windows in the dome, which admit sunlight to the portraits and protect them from the weather.

Dr. John Evans, Indiana physician, was Governor of Colorado territory during the Civil War. Capitalist, cowboy, educator, inventor, railroad magnate, humanitarian, and philanthropist—his was a full and dedicated life, worthy of emulation.

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EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

“Possibly” effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a “crutch” may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use

of minor tranquilizers (meprobamate, chloridiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Meclazol, or amphet-

mine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions. Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and resumption of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during

continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug. Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdose with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see Management of Overdosage).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the

judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see Warnings) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdose with propoxyphene are similar to those of narcotic overdose and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antago-

nists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdose with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma and death may follow. Renal failure due to tubular necrosis, and myocardialopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteine) or other thiol compounds may protect against liver damage if given soon after overdose (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Dr. Bowen Supports Non-Smokers' Rights

Story & Photo
by
BARBARA LONG
Indianapolis

SENATE BILL NO. 14, restricting smoking in government buildings and vehicles, was snuffed out last year in a close 26-19 vote. But the smoldering continues.

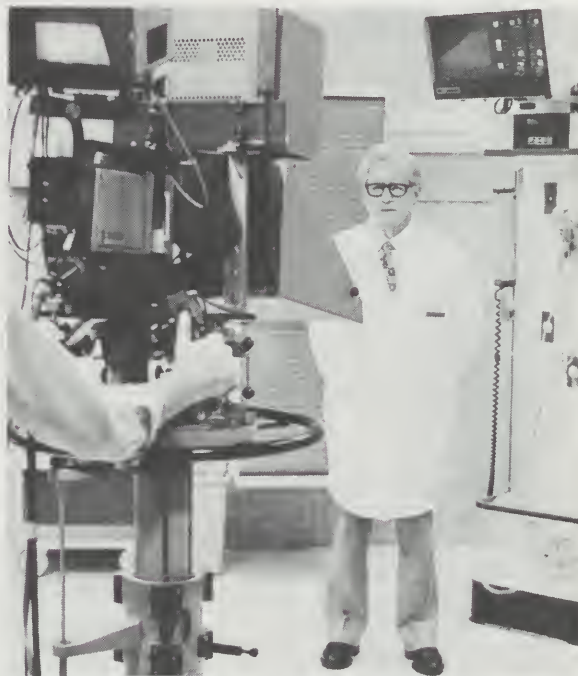
Supporters of the bill are perhaps regarded as fanatical as the followers of Carry Nation, vehemently crusading on the evils of smoking. Antagonized smokers retort to these lung-saving pests that it's their body and therefore their right to smoke whenever and wherever they choose. While smokers do have the right to smoke, their rights extend only to the point that they don't infringe upon the rights of others.

Medical evidence documents that the health hazards of second-hand smoke (from the burning end) are not to be sneezed at—or breathed.

Former Governor Dr. Otis R. Bowen, professor of Family Medicine and director of Undergraduate Curriculum for Family Medicine, is assisting the American Lung Association of Indiana in its efforts to secure rights for non-smokers in Indiana. Dr. Bowen is appearing in two television spots supporting non-smokers' rights and proposed legislation to restrict smoking in government buildings and vehicles.

The legislation is important to Dr. Bowen because of his concern about "harmful effects of smoking on the smoker, and those breathing the smoker's smoke." Last year's co-author of the legislation, Senator James Butcher (R-Kokomo), agrees. Butcher is encouraged since the 1981 session was the first time the non-smokers' rights bill got to the floor of the Senate.

"I feel we're making headway, and I'm very pleased about the survey which shows 70% of the electorate want smoking restricted," Butcher said. The survey, conducted by the School of Public and Environmental Affairs at Indiana University-South Bend, also found that two of three Hoosiers believe government has the right to pass laws restricting the places where a person



Dr. Bowen tapes two 30-second television spot announcements in the studio of NICER Productions, Indiana University School of Nursing.

can smoke. Furthermore, the survey indicated that seven of 10 persons interviewed believed people's health is endangered by the presence of tobacco smoke, confirming their belief of the scientific evidence.

Despite this documented support, not all legislators have been convinced. The 1981-82 session will be the sixth time the lawmakers are presented with the non-smokers' rights legislation. The backers are a determined group.

Critics have argued that the scientific community is divided; that the bill is not enforceable; that it is another form of over-regulation; and that it is a threat to tobacco growers. The facts (scientific and per cent of electorate support) seemingly have been avoided. Hoosiers have been too patient.

The Indiana State Medical Association is in favor of restricted smoking in government buildings and vehicles. Seventy per cent of Hoosiers favor restricted smoking. Dr. Bowen is convinced, and Senator Butcher is optimistic, declaring, "I know that logic and common sense will come through for us."

The author is Assistant Director of Communications and Development, American Lung Association of Indiana.

Rural Physician Says EMTs Watch Too Much TV

I have been a faithful reader of THE JOURNAL for years. I have found most of your articles to be of high quality. However, when John C. Johnson, M.D., stated in the June 1981 issue ("Ever Need an Ambulance?") that many lives have been lost in Indiana because we physicians do not watch *240 Robert* and *Emergency One* on television, I was disappointed.

I decided to remain silent until the August 1981 issue had an article by the same John C. Johnson, M.D., referring to physicians at the scene of an accident as "interveners." ("Physician at the Scene—an Intervener").

It is my opinion that these "80-hour wonder" EMTs watch too much *240 Robert* and *Emergency One*. Last year I called for an ambulance to transport a 90-plus-year-old bedfast cripple to the hospital to lighten the burden on the family during her final days. I told the dispatcher that this was not an emergency. As I was driving back to my office from the patient's residence, I met the ambulance at full speed with lights flashing and siren screaming on the way to my patient's home.

On Aug. 6, 1981, at 8:40 a.m., I again met an ambulance coming around a corner at such excess speed that it was on two wheels and over the centerline of the road on a curve in town. It was on its way to pick up the dead body of a dope pusher who had been found in a field. Too much *Emergency One* indeed!

As far as Dr. Johnson's criticism as an "intervener," one evening I parked my car and looked out my windshield to see a body fall out of a tall sign of a business building in Evansville. I was the first person on the scene. I had a stethoscope in my pocket and identified myself as a physician. The victim was apnoeic and flaccid but had a heart beat.

His co-worker refused to allow me to move him to establish a better airway. When the police arrived, they told me to get out of the way because the EMTs would be there in a short while. When they arrived, they flipped the body over and started CPR with no exam, no established airway, no respiratory assistance on a heart that had never stopped beating.

In my opinion, the Emergency Medical Services Commission is making a mess out of the care and transport of the sick and injured. The meddling and delays that occur, as well as the extra expense, have led me to adopt a policy of sending everyone I can to the hospital by private conveyance.

My nurse's father came to my office with a ruptured abdominal aortic aneurysm. I evaluated him and asked the ambulance service to transport him to the hospital. They attempted to delay his departure by duplicating things I had already done. I insisted that they take him to the hospital immediately. They took him to the ambulance and sat in the parking lot until they completed their meddling.

Eighty hours of training does not make a person more skilled in an emergency situation than the 10,000-plus hours of medical school training. Dr. Johnson's article as written makes EMTs less respectful of physicians. If you read his last paragraph, you can see it has no place in our fine journal. Dr. Johnson says, "If you have problems with the issue of the physician intervener, contact your local Emergency Medical Services Agency."

If this letter is published, I'm certain it will bring a lot of "flak." My experiences are not unique. I have

spent 23 years in General Practice in a rural setting. I have attended a lot of disasters on the scene. There never were such problems prior to the establishment of EMTs. I think Dr. Johnson does not want physicians to see how badly his people handle situations; therefore, he calls physicians "interveners" and urges us to stay away from his people.

I hope that they will grow up into the real world someday and abandon *240 Robert* and *Emergency One*. In the meantime, some physicians had better become interveners.

Robert C. Colvin, M.D.
Newburgh, Indiana

Author's Reply: Cites Positive Results of EMTs

Over the last 10 years, as pre-hospital emergency medical care has progressed from the early "scoop and run" in a station wagon or hearse-type vehicle to the present professional evaluation, stabilization and transportation via a vehicle with essential medical equipment, there have been problems and there will continue to be problems.

Ambulance dispatchers can rarely depend on the information conveyed during a phone call requesting an ambulance. While Charlie may be sleeping and unarousable to the family—in reality, Charlie may be dead. Grandma has fallen—but was it a cardiac arrest or arrhythmia that caused the fall? Billy swallowed a marble—sounds benign, unless he aspirated it. The goal of emergency medical service (EMS) is a response time of five minutes. Why five minutes? Brain death occurs five to 10 minutes after circulation ceases. So, when there is doubt as to the seriousness of an injury or illness—the ambulance flies.

Emergency personnel are accountable to the physicians who monitor their activities. EMTs now spend approximately 120 hours in

Letters will be published as space permits and at the discretion of the editor. They will be subject to editing. Reader response is encouraged. Letters should be addressed to THE JOURNAL of the Indiana State Medical Association, 3935 N. Meridian St., Indianapolis 46208.

training to provide basic emergency care while paramedics will spend an additional 1,000 hours. The state's prehospital personnel are not only providing a much needed service to the people of Indiana, but for many it is also their job, their source of income. While their actions may be deliberate at times, they are following protocols established locally and nationally to assure *safe* and proper medical care by non-physician medical personnel.

Unrecognized physicians have been appearing at accident scenes more frequently on a national scale. Fear of malpractice has kept them away in the past. Either that fear is lessening or morality has returned. Unfortunately, persons claiming to be physicians are not always physicians. Others are physicians—but are not familiar with emergency medicine and/or have engaged most recently in an area of practice (eg, OB) inappropriate to the accident at hand (eg, cervical fracture). Do you trust a stranger claiming to be a physician or do you trust your own training and follow the medical protocols established by your physician medical director? The problem is becoming so prevalent that there have been roughly a dozen articles on the issue in national journals over the last several years. Locally, medical directors (physicians) of Indiana EMS services have requested help in finding a solution

to the (to paraphrase one article) "Thanks, Doc—but no thanks" problem.

Perhaps your 92-year-old cripple had a right to die. A transfer service rather than an emergency ambulance would have been more appropriate without the lights and sirens and at a much lesser cost. And it is well established that CPR is appropriate for the patient with a pulse but without adequate circulation. But does not the "dope pusher" have the same right to life as any other Indiana citizen—and can you be sure he was actually dead when the ambulance was dispatched? If death were a certainty, the police or coroner would not have requested an emergency ambulance.

EMS is new and it is still evolving. The standards for prehospital care are improving. Thanks to quality prehospital care, studies have shown that up to 30% of heart attack patients who would have died 10 years ago reach the hospital alive today thanks to advanced life support (ALS or paramedic) care. For those areas with basic care (EMTs), up to 12% will reach the hospital alive who would not have in years gone by. Nationally, it is estimated that 16,000 heart patients live every year solely because of advances in prehospital care. Similar data are provided for trauma patients and the numbers cannot be

estimated for the reductions in patient morbidity and length of hospital stay.

In the last several months when I was still at St. Mary's in Evansville, two asthmatic patients were brought to the ER on separate occasions by "private conveyance." Relatives insisted that both girls were talking and breathing when they left home for the hospital. Both stopped breathing en route to the hospital. One girl, a 24-year-old mother of a little boy, was resuscitated only to be pronounced brain dead two days later. The second girl, 15 years old, could not be resuscitated. It is unfortunate that Evansville's quality EMS system directed by the three-hospital EMS Consortium could not have "meddled," as you put it, in these girl's prehospital care.

The Commission's meetings are open to the public and we readily invite comment on all issues affecting EMS. We are here to serve and care for the emergency medical needs of the people of Indiana. Please do not hesitate to contact your local Southwest Indiana EMS Regional Coordination Center in Evansville or the Commission if we may be of service to you.

John C. Johnson, M.D.
Chairman, Indiana
Emergency Medical
Services Commission



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Gasoline and Silver

Guest Editorial

JOHN M. CORBOY, M.D.
Wahiawa, Hawaii

THIRTY YEARS AGO, our coins were made mostly of silver and our dollars were certificates redeemable for real metal. You could buy a gallon of gasoline with a 25-cent piece in the early 1950s.

Then the government changed the monetary system. They took the silver out of coins and dollars, so that these became simply tokens of exchange. Lacking intrinsic value, this new money

Reprinted with permission from the Hawaii Medical Journal, Honolulu, in which this editorial appeared in August 1981.

could be printed like carnival scrip in whatever amounts were desired. And like most commodities, the more they make the less it's worth.

If you have one of those real quarters of a generation ago, it will buy *more* than a gallon of gas today; your quarter contains about 2.25 "dollars" of silver money. So you can actually get more gasoline for your silver today than 30 years ago. Despite what you'd have thought, the true price of gasoline (in real money terms) has actually fallen.

Put another way, your silver quarter has held its value. It's only our legal tender that's losing value: It takes nine "token" quarters to buy one "real" quarter. Perhaps it's wise to consider our currency as carnival scrip: having face value for a limited period, intended to be promptly exchanged for goods or services, worthless if saved.



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DOCTORS & DRUG ABUSERS



This is the second in a new series designed to highlight the personal experiences of physicians in dealing with drug addicts. It is reprinted by permission from "The Alabama MD," published by the Medical Association of the State of Alabama. Although the variety of clever schemes used by addicts is endless, it is hoped that this feature will serve as an educational tool in helping control shady dealings. Your experiences are solicited and will be considered even if they are submitted on an anonymous basis.

Alabama physicians are alerted to a new twist on a controlled substance scam reported from the Birmingham area.

Gaines F. Jones, M.D., Lloyd Noland Hospital, Fairfield, Alabama, described the bogus contact he received:

"I got a call this morning (June 29) from a lady who introduced herself as an oncologist from Texas."

The "Texas oncologist" said she had a patient with Hodgkin's disease in Birmingham for a relative's funeral. The patient, whom she named, had called her, she said, to say that he would have to remain in Birmingham for a time because of "problems with the will" of a relative. He was on medication but did not have a sufficient supply for his protracted stay.

She went on to explain that she had gotten Dr. Jones' name from another relative of the supposed patient, whose name she gave. That patient is, in fact, a real patient of Dr. Jones', living in Hueytown.

The "Texas oncologist" named three controlled substances her patient would need, asking Dr. Jones to accommodate her and write the prescriptions for 50 of each drug. Dr. Jones responded that he would have to see the Texas patient before writing any prescriptions. In that case, she said, she would try to make other arrangements. She hung up.

Intrigued, Dr. Jones called his patient whose name was mentioned by the caller. The Hueytown lady said she did not know the person named as being a Texas relative of hers. However, the night before (June 28) she had been called by someone "taking a survey." In the course of the survey, the caller got from her the name of her physician, Dr. Jones, promising that she would receive a gift in the mail for her cooperation.

Dr. Jones is at a loss to explain how the name of his patient (who is not a cancer patient) was obtained by the "surveyor."

In any case, this appears to be another variation of an old scam. Physicians should be mindful that it may appear in other forms as well.

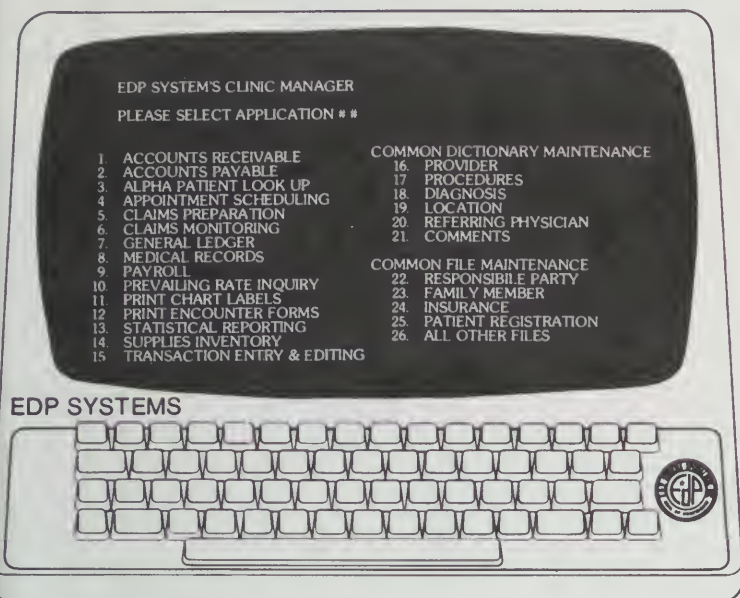
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E.R. Physician Negligent for Not Giving EKG

Court Action

A TRIAL COURT ERRED in denying a motion for a partial directed verdict that an emergency room physician and a hospital were negligent as a matter of law, the Washington Supreme Court has ruled.

A 37-year-old patient, an attorney, consulted his family physician on February 16, 1972, for intermittent mid-chest pain he experienced on mild exertion. The physician performed a physical examination, took X-rays and a resting EKG, and ordered cardiac enzyme tests. He suspected angina pectoris, but did not tell the patient of his suspicion or perform a nitroglycerine, treadmill EKG or angiography test to diagnose angina. He diagnosed the patient's condition as inflammation of sternum cartilage and advised the patient to restrict his activities. The patient thought he had a flu virus that had recently affected his family.

About two weeks later the patient returned to the physician, complaining of pain and gastric problems after eating. The physician had received the results of the earlier cardiac enzyme tests, which were not within normal limits. He took a resting EKG, which was not normal, and then prescribed an antacid and Sorbitrate. He told the patient that the Sorbitrate was for chest pain but did not tell him of the possibility of angina and heart disease. During the next week, the patient called his physician three times complaining of increasing chest pain radiating into his arms.

At about 3:00 a.m., on March 6, 1972, the patient collapsed and was taken by ambulance to a hospital emergency room. There was testimony that upon his arrival he had a 90 per cent chance of survival with appropriate medical care. He was in pain, pale, sweating and short of breath. During most of the time he spent in the emergency room he was on his hands and knees on the bed in an effort to assuage his pain.

The emergency room physician, a hospital employee, performed a brief physical examination and took his blood pressure, which was high. The physician believed that he was suffering from anxiety and prescribed Valium. He called the patient's family physician, who did not reveal the

results of his test or the drugs prescribed. On the patient's insistence he was admitted to a general medical care room. Maalox and Valium were prescribed.

An hour later a nurse called the family physician about the patient's deteriorating condition, poor color and irregular, rapid pulse. He prescribed a non-narcotic analgesic and a tranquilizer. Those drugs had no effect on the patient's condition. An hour later he prescribed morphine and oxygen.

The physician's partner, who was in the hospital on another matter, saw the patient and ordered him moved to the cardiac care unit. The first EKG, taken at the hospital at 9:15 a.m., showed substantial death of the heart muscle. His condition worsened; his heart stopped and he was resuscitated twice before he died at 1:35 p.m.

On appeal from a malpractice verdict for the hospital and physicians, the patient's estate argued that the trial court erred in refusing to give informed consent instructions and in refusing to find certain defendants negligent as a matter of law. The Supreme Court said that the emergency room physician was not subject to the doctrine of informed consent because of the emergency situation and the fact that the patient was interested only in relieving his pain.

The family physician was not negligent as a matter of law, and the question of his negligence was properly left for the jury, the court said. The emergency room physician was negligent as a matter of law in failing to administer an EKG to the patient to rule out a heart attack as the cause of his chest pain. The court also said that the family physician was negligent in failing to inform the patient of alternative diagnostic techniques.

The Supreme Court reversed the decision of the appellate court and remanded the case for trial on the issue of damages that may have been proximately caused by the family physician's failure to inform the patient of alternate diagnostic techniques and by the emergency room physician's failure to administer an EKG and thus diagnose the condition.—*Keogan v. Holy Family Hospital*, 622 P.2d 1246 (Wash. Sup. Ct., Dec. 31, 1980)

Courtesy of *The Citation*, June 15, 1981.

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DIURETIC THERAPY* (when the
combination represents previously titrated dosage)

*Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

Serum K⁺ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. The following is a brief summary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and

triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K⁺ frequently; both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased

dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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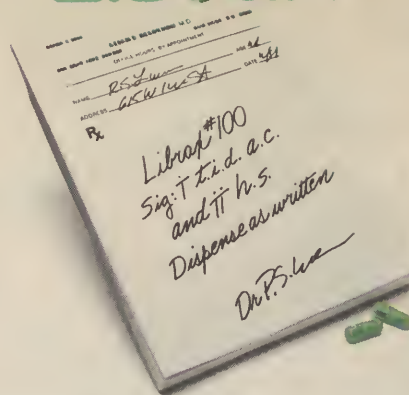
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A public service message from this magazine and the Advertising Council

Specify Librax[®]



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium[®] (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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Artist's concept of myoelectrical slow waves of the colon which seem to determine the frequency of colonic motor activity.

A visible difference in myoelectric rhythms of the colon

Studies reveal an increased frequency of 3-cycles-per-minute slow wave basic electrical activity in the colons of patients with IBS—a significant difference in basic colonic rhythm patterns from normal subjects.^{1,2} These findings suggest a physiological basis for the spasm and hypermotility characteristic of IBS. The role of severe anxiety in triggering or aggravating such symptoms has long been recognized. Consequently, treatment should focus on both aspects of the problem.

Librax: A logical choice for patients with IBS

Logical, because the antimotility-antispasmodic actions of the Quarzan® (clidinium bromide/Roche) component of Librax can help to relieve the distressing abdominal symptoms associated with IBS.* Logical, because the antianxiety actions of the Librium® (chlordiazepoxide HCl/Roche) component can help to reduce the excessive anxiety that can contribute to IBS flare-ups.

References: 1. Sullivan MA, Cohen S, Snape WJ: *N Engl J Med* 298:878-883, Apr 20, 1978.
2. Snape WJ et al: *Gastroenterology* 72: 383-387, Mar 1977.

Specify **Librax**®
Adjunctive

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Antianxiety/Antisecretory/Antispasmodic

*Librax has been evaluated as possibly effective for this indication. Please see summary of prescribing information on facing page.

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for Knotts in the night

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Quinamm^{*}

(quinine sulfate tablets)

each tablet contains quinine sulfate 260 mg



Specific therapy for painful night leg cramps

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Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes, or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

Quinamm[™]

(quinine sulfate tablets)

CAUTION: Federal law prohibits dispensing without prescription.
BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps.

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy.

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision; however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin.

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears.

If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdosage, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS). Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine

have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties.

Urinary alkalinizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes. Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM/kg) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative, when mammalian liver homogenate was added, positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage (individual or multiple symptoms may represent cinchonism or hypersensitivity):

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoprothrombinemia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia, diminished visual fields, and disturbed color vision; tinnitus, deafness, and vertigo; headache, nausea, vomiting, fever, apprehension, restlessness, confusion, and syncope.

Dermatologic/allergic: cutaneous rashes (urticarial the most frequent type of allergic reaction, papular, or scarlatinous), pruritus, flushing of the skin, sweating, occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related), epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring.

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October, 1980

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How to Recruit for a Physician for Your Practice

Medical Practice Management

LEIF C. BECK, LL.B.
GEOFFREY T. ANDERS, J.D.
Bala Cynwyd, Pa.

SOLE PRACTITIONERS and members of small groups only occasionally in their lifetimes recruit and hire physicians to join them in practice. Larger groups and multi-specialty clinics take on new doctors more often, but even for them each effort is somewhat unique to the physicians and/or administrators involved.

Selecting a physician to become one's "partner" ranks among the most important decisions a senior doctor makes during his practice lifetime. The costs of an unfortunate choice, whether it fails because of clinical shortcomings or personality concerns, will be almost beyond measure. Unsatisfactory patient care may be perceived by the senior doctor(s); patient relations may be damaged and/or referring doctors may become dissatisfied; the emotional strain of a poor peer relationship may take its toll on the senior(s); the dollar cost of supporting a highly paid physician-employee may damage the practice's economics; and so on.

On the other hand, a good choice

is like manna from heaven. The practice adds a new and highly qualified member to provide increasingly fine care to its patients and the community. The existing doctor's or doctors' work loads and time demands might be reduced by the sharing of practice burdens without fear of poor results. Inter-doctor relations may be fostered by addition of a peer with whom to consult on the same wave length. Another highly skilled member hopefully will increase or at least help the practice maintain its per-doctor income base. And with all these advantages, the hiring doctor(s) should have a sense of confidence and trust in the new member that will serve their emotional and personal well-being.

With so much to lose and also so much to gain, we wonder why senior physicians haphazardly conduct their new-member searches. To some extent, the reason is simply a doctor's "busy-ness" with his medical practice—he is too busy to give the project careful attention—but many other doctors just are not sure how to proceed. One physician re-

cently told us, "This is the first time I've ever had to seek out a partner; how should I go about it?" We hope this article will provide some guidance.

Starting Early

Assuming the decision to expand or replace was made far enough in advance (an early decision vastly improves the chances of recruiting success), the actual recruiting process should begin much sooner than most physicians expect. We suggest that late winter or early spring of the year *before* a planned hiring (some one and a half years before it) to be the best. In other words, recruiting at training programs should concentrate on the second-year residents and fairly newly appointed two-year fellows.

Contacting young physicians more than a year before they are available gives a senior doctor(s) a healthy headstart. The recruiting season is at its heaviest in the fall of a young doctor's final training year, and as a result efforts starting even in October or November might be late to catch the most outstanding candidates.

A practice should strive to be ahead of its competitors for those few "superstars." Hence it should avoid having its recruiting effort crowded out by a number of contemporaneous competing inquiries and interviews.

Some doctors only decide to expand or replace within a few months of the anticipated July 1 starting date. They will be best served addressing their efforts to *both* second and third year residents (and equivalent fellows). While they might be fortunate in locating an "ideal" candidate for July 1, the odds will be against them. Too many good physicians will already have been signed up. Those late-starting doctors' best alternatives may thus be to develop the best doctor choice for the following July 1, being early

on that search and late for the immediate search.

Our timing recommendation assumes recruitment from residency and fellowship training programs, for they are the most common source of new physician-members. Other sources include the military services, from which resignation dates vary throughout the year, and

A large pool of choices will increase the likelihood of finding that new partner . . .

various group, clinic and P.H.S. employments which are turning out unsatisfactorily. Off-schedule recruitment might locate highly desirable applicants from these sources sooner than anticipated, but a practice cannot depend on it.

Overall, our timing emphasis is based on one overriding philosophy. A doctor should insist on continuing his efforts and being patient until the "ideal" candidate presents himself or herself and is hired. Thus, it is best to start early with built-in time for critical selection.

Getting the Word Out

The recruiting process should start with a deliberate effort to attract the greatest possible number of qualified applicants from which to select. One can never tell where that one "best" person will come from, so a large pool of choices will increase the percentage likelihood of finding him or her.

Physicians tend to dislike this advice despite its inherent logic. They protest that they are too busy to sift through countless resumes and endure dozens of interviews, choosing instead to contact just a few training program chiefs and hope for a lucky find. However, the subject is simply too important for less than maximum effort; and the

time problem should instead be solved by structuring all succeeding steps as efficiently as possible.

There are three main sources from which to develop a pool of applicants, all of which should be considered. Let us discuss each:

1. *Physician search organizations.* Some companies specialize in recruiting physicians for possible final interview and employment. These so-called "headhunters" are commonly used by large clinics, HMOs, industrial employers and the like but they only rarely work for solo and small group practices. A search organization is typically paid on a commission basis, the fee being a substantial percentage of the agreed first-year salary, payable by the employer group when a candidate it produces starts his or her employment.

Few, if any, search organizations are geared to subtly selecting someone for the close inter-personal "fit" required in small practice situations. The hefty commission and private practitioners' beliefs that they can select as well or better on their own (with which we usually agree) typically lead away from this approach.

2. *Journal advertising.* Major journals of each specialty or subspecialty carry numerous want ads placed by practitioners and clinics seeking physician-employees. The sheer number of ads carried each month, combined with a corresponding fear that most of the inquiries will be underqualified, tends to weaken doctors' enthusiasm for this approach. Yet we consider journal advertising to be a worthwhile, cost-efficient part of the overall effort.

Receiving too many responses from an ad is far better than not encountering interested, qualified applicants at all. Recognizing that many of the respondents will not fit a practice's requirements of

quality training and performance, one should simply undertake to screen each response very critically before proceeding further. Even if just one or a few of the respondents become potentially excellent candidates who would otherwise have been missed, journal want ads should definitely be used.

Journal ads should be drafted with a bit of flair, for too many of them tend to suppress response by their sameness in style and language. We therefore recommend oversized ads with text attempting to convey a positive image of the practice involved. The difference in cost between a standard half-inch want ad and a two-inch bordered ad is so slight in relation to the subject's importance that any economy would be false.

The ad might thus contain a bold heading, extra blank space above and below the first and last lines and a centered title to attract readers' attention. Its text should describe the practice's attractive characteristics and any specific qualifications required of its applicants. It should, in effect, be a tool to "sell" your practice enough that qualified doctors will inquire further.

Many inquiries might flow from a single ad, and hence the text should request a cover letter and a curriculum vitae. The practice itself should not be identified, the text instead calling for submission to a box number usually provided by the journal. This approach enables critical culling of all responses before deciding who should be considered further.

Even if one month's ad in one journal produces a number of responses, the best policy is to advertise in several quality journals for a number of months. The time and dollar costs are small compared to the possibility that a later or different ad will be seen by the ultimately best choice for "partner."

3. *Training programs.* Direct contact to chiefs of residency and fellowship training programs usually is the most successful way to find well-qualified practice partners. Unfortunately, however, many hiring doctors take less than full advantage of the source.

A letter describing one's need for a quality young doctor should be

Journal advertising
is a worthwhile,
cost-efficient part of
the recruiting effort . . .

prepared and sent to the chief of every well-regarded training program. The effort should not be limited to a handful of programs within the practice's geographic region; where a young doctor happens to be training bears no consistent relation with where he or she might choose to settle.

If the hiring doctor knows the training program chief even casually, an introductory telephone call should precede the letter to give maximum impact. Once in a while, the chief might happen to name a favorite resident or fellow in that conversation, from which the hiring doctor might contact that young individual directly.

After the department chief hopefully reads the letter, he will probably have it tacked onto a bulletin board in the residents' lounge or educational office. It will thus have to compete with many other letters and notices seeking the young doctors' attention, so it must be carefully drafted as a "selling tool."

We advise preparing a fairly short letter which briefly describes what qualifications are being sought and why the opportunity is a superior one. It should call attention to an attached memo containing more detailed description. That memo should fully describe the practice

and its physician-member(s), the hospital(s) involved and the medical climate of the community. Describing the community itself as a place to live, raise children and enjoy recreational and cultural features is, of course, equally important.

The memo, which presumably will be included on the bulletin board, should plainly show its purpose of interesting the best young doctors. It will hopefully convince them there is a particularly good practice opportunity that deserves to be pursued. The residents reading the memo should thus be invited to respond by letter, enclosing a c.v. for the hiring practitioner's initial screening review.

Initial Screening of Responses

Since a practicing physician will have limited time, the supply of respondents must be critically culled out. Many of the blind ad responses will be inappropriate on their face and can be marked for the "no" file. Letters personally addressed to rejected doctors who had answered the training program solicitation should, out of courtesy, briefly state that the qualifications are off-line.

The initially interesting responses might be held for a few weeks or a month. Each of them should be "graded" on a scale of one to ten and kept in that order until enough applicants' c.v.'s have been reviewed. In this manner the most favorably appearing inquiries will receive first attention when the next step is taken. Of course, any response that appears on its face to present an absolutely ideal candidate could be pursued immediately.

Responding by Telephone

When ready to proceed, the hiring doctor should devote an evening or evenings to telephoning his top-ranked applicants. The discussion can describe the practice more fully

and pursue further the young doctor's true level of interest. Conversation about clinical aspects of the specialty and general non-medical interests are equally valuable so the parties can begin feeling each other out as real people.

The hiring doctor should make notes of his impressions as the conversation takes place. Margins of the cover letter and/or c.v. are ideal for those notes since the impressions would thus be kept with the young doctor's identifying characteristics. The observations should include personality features, training or clinical concerns and any "gut reactions" one might have.

The telephone discussion should not automatically result in an invitation to visit the practice. There may still be a variety of applicants deserving follow-up, and the hiring physician must avoid being trapped into too many time-consuming personal interviews. Each applicant can be told that the phone call is a preliminary contact and that a number of other respondents are still to be telephoned. A promise of either an invitation to proceed further or a brief letter stating otherwise within perhaps a month would be a good courtesy upon ending the phone call.

Checking References

There is no sense in consuming valuable doctor time to interview possible candidates who might later be rejected for easily discernible reasons. Accordingly, a senior doctor should first very deliberately check references on any applicant who appears attractive on paper and by telephone.

While a reference check will be most successful directly in person, telephone calls usually will have to suffice. In any event, a doctor should not rely on letters since people rarely will express their true impressions of other people in writing.

The chief of the young doctor's present training program obviously must be contacted, and we recommend telephoning other physicians the candidate has named as being involved in his or her training. Chiefs and other medical supervisors at prior training programs and/or work experiences also should be contacted. If a busy practitioner

References should
be checked carefully
in person or by phone
before an interview . . .

objects that so many phone calls will take too much time, he might instead consider how much time will be wasted in interviewing the wrong candidate.

One should have a clear, written outline of the questions to be asked. While concerns over clinical experience and competence are obvious, a number of other concerns deserve equal attention. Ask, for example, how nurses, clerks and reception people have responded to the young doctor; someone with an overbearing attitude toward subordinates may well become a difficult partner a few years hence. Similarly, one's demeanor with patients must be important to the private practitioner. Whether the chief or other supervisor has heard of any complaints in these personal aspects of training and/or practice should be a virtually automatic question.

Here are a few special questions that might be asked along with the described line of inquiry: Were assigned projects performed on time? Were there any personality conflicts with peers? With any of the seniors? Did he/she demonstrate any leadership qualities and, if so, how? Was he/she punctual? Was there any indication that family or personal matters might interfere with his/her work performance? What are his/

her best characteristics? What are the weakest?

Making careful notes of each reference person's responses and including impressions of those answers' feeling and enthusiasm is important. Those notes should be clipped with the other materials on the same candidate for handy evaluation. The overall supply of material should lead to an intelligent decision as to which individuals should actually be invited to the office.

First Interviewing

Those selected few physicians, no more than five as a "first round," should then be invited to meet with the doctor or doctors at the office. Assuming the applicants are within a few hundred miles of the office, each first interview might be planned to last no more than two hours on a weekday evening. It will thus serve as a business interview—a first, get-acquainted opportunity to jointly determine whether more serious discussions should follow. (If the doctor is coming from far away, this first session should still be made fairly brief. A full afternoon might be given him or her out of courtesy with a tour of the hospital and community helping extend the day; but it should nevertheless not be made into a heavier undertaking at this preliminary interview stage.)

We believe too many doctors improperly create overexaggerated first interviews. The sessions are day-long social and business gatherings from which commitment to actually practice together tends to develop without critical evaluation. Luxurious dinners, evenings with spouses in seniors' homes and the like just are not conducive to early "feeling out" efforts.

The senior doctor(s) should be extremely critical during these preliminary interviews. The practitioner should take notes of his

impressions, perhaps using the young doctor's resume page or a separate sheet for his observations. Particular attention should be given to impressions of his or her capacity to interrelate with people and to communicate well, his or her overall personality and the like—not just to indications of clinical or academic ability. The reason for this emphasis is simply that practice relationships fail more often because of interpersonal difficulties than professional deficiencies.

The initial interview can be brought to an end on schedule by the senior doctor(s) simply by thanking the visitor for coming to talk. It should be made clear that other young doctors are similarly being interviewed, after which a few people will be invited back for extensive discussion. In any event, an interviewed physician must be given the courtesy of some follow-up within a promised period of two to four weeks, whether or not he/she will be invited back.

Second, In-Depth, Meeting

The process hopefully will have identified one person or a few individuals who might be ideal candidates for a long-term practice relationship. If not, we are relatively unenthusiastic about pursuing lower rated candidates because doctor-level selection is too important for quality compromise. It may be better to forego second interviews and resume the search for new possibilities, even if it means waiting longer to add a physician to one's practice.

A selected doctor should at this stage be invited to spend at least a full day and evening with the senior doctor or group. Each physician-member of a group practice might then engage in one-on-one discussion, and the lead or solo doctor should plan on devoting many hours of attention. In addition to long, rambling discussion about all

matters affecting a future relationship, the senior doctor can take the candidate for a tour of the hospital(s) served and even of the community.

One might arrange a few hours during which the young doctor can actually work side-by-side in practice with the senior. A candidate can learn better what the practice is

**A selected doctor
should be invited
to spend a full day
with the group . . .**

really like in a real-life setting, while the senior(s) can observe how he or she performs under regular practice demands. It allows both sides to let their hair down a little bit. Although concerns over malpractice insurance, hospital rules and/or patient acceptance may interfere with this opportunity, it should be attempted to whatever extent possible.

We prefer structuring the discussions in a business format—over a desk in the office. The long-term relation being considered is a business and professional one much more than a social friendship, so the talk should reflect that future. A pleasant dinner, perhaps with spouses, may be a good interlude but one rarely accomplishes the same level of meaningful talk in that environment.

Non-practice aspects of life are, of course, equally important to a well-balanced young physician. Therefore, he or she should be given some free time to learn about the community, its cultural and recreational advantages, its features for all members of a family, and the like. If the doctor's spouse joined in the visit, the senior's spouse might help show her or him about, although we prefer to downplay spousal involvement in an overall practice environment.

The business discussions can focus on professional plans for the practice, its present and projected future finances and the young doctor's personal goals and concerns. We encourage complete candor at this point, even showing the practice's financial reports, consistent with one's intention to seek the young doctor as a peer.

An outline of what tentatively are considered reasonable first-year employment terms and ongoing partnership details should be presented, though it should be framed as preliminary. One must maintain the concept that this in-depth interview day is still just another step in each side's selection process. Even if only the one young doctor is under consideration, it should nevertheless appear that no real decision has yet been made and that other candidates might also be in the picture.

Moving To Final Negotiations

After this extensive day or days of involvement, each side should have a good idea whether practicing together may indeed be desirable. The senior doctor or group should critically review all the materials and personal impressions on each remaining candidate and decide with whom discussions should be continued. If the selected young doctor (or perhaps several doctors who are still highly desired) also remains interested, then there should be third, fourth and maybe even more specific discussions.

The routine would at this stage have changed from one of selection to one of courtship—promoting one's practice as an ideal partner and working out the details of that desired relationship. Having moved through this process of careful recruiting and selecting, the young physician who receives final attention will have much greater potential to become an excellent partner, both professionally and personally.

ISMA Insurance Company Formed

The new life insurance company formed this summer by ISMA is ready to begin operations. Indiana Physicians Life Insurance Company (IPLIC) is a subsidiary of the holding company, Indiana Physicians Investment Company. It has been fully licensed by the Indiana Department of Insurance and is ready to serve the doctors of the state with life insurance and related services.

As most ISMA members have been aware, the planning for this company has been in process for several years. A membership survey in mid-1979 elicited a positive response to the concept of an ISMA-formed, physician-owned life insurance company serving ISMA members. The company not only would provide immediate benefit to members because of the life insurance coverages possible, but would serve as an entity from which other insurance protection, such as professional liability, automobile, and homeowners insurance could be written if necessary in the future. Such additional insurance services could be provided by the formation of a second subsidiary of the holding company to write property and cas-

ualty coverage.

IPLIC's parent holding company was capitalized by the sale of \$2.1 million in stock by the ISMA to Ohio's physician-owned company, Physicians Insurance Company of Ohio (PICO). Under a registration statement approved by the Securities and Exchange Commission, the sale of \$2 million of the shares (the Class A common stock) will be conducted to Indiana physicians. The registration provides for the sale of an additional \$2.5 million of Class A company stock. The price per share is \$20 and the offering is being conducted through the prospectus only, by a sales agent, First Securities Corporation. PICO will be providing initial management services for the new company.

Indiana Physicians Life is commencing business by offering group term life insurance to Indiana physicians. This product will feature high non-medical limits and low rates.

The company is able to offer such an attractive product at this reasonable cost because the marketing of the coverage is done exclusively by direct mail. No sales agents will

be involved, both to keep the costs as low as possible, and because the product is easily understood by most professionals, and does not usually require consultation with a life insurance representative.

Advertisements will be appearing regularly in *THE JOURNAL* of the ISMA and in county publications. In addition, doctors will receive several mailings in the next few months with information about the coverage.

The same product has been offered to physicians in Ohio, Kentucky and Michigan with much success. Future products being developed include an income replacement plan (similar to a disability-type policy), office overhead coverage and one of the newest concepts in permanent life insurance, a "universal life" program.

The offices for Indiana Physicians Life have been established in Indianapolis at 3845 North Meridian Street. The chairman and president is Arvine G. Popplewell, M.D. Mr. Harold M. Wilson has been hired as assistant vice president and chief operating officer. Their phone number is (317) 925-2937.

GUN CONTROL

Guest Editorial

L. A. ARATA, M.D.
Shelbyville

SINCE THE SHOOTINGS of President Reagan and Pope John Paul, we hear so much propaganda about gun control. What does it mean to all of us? Would gun control legislation help anyone?

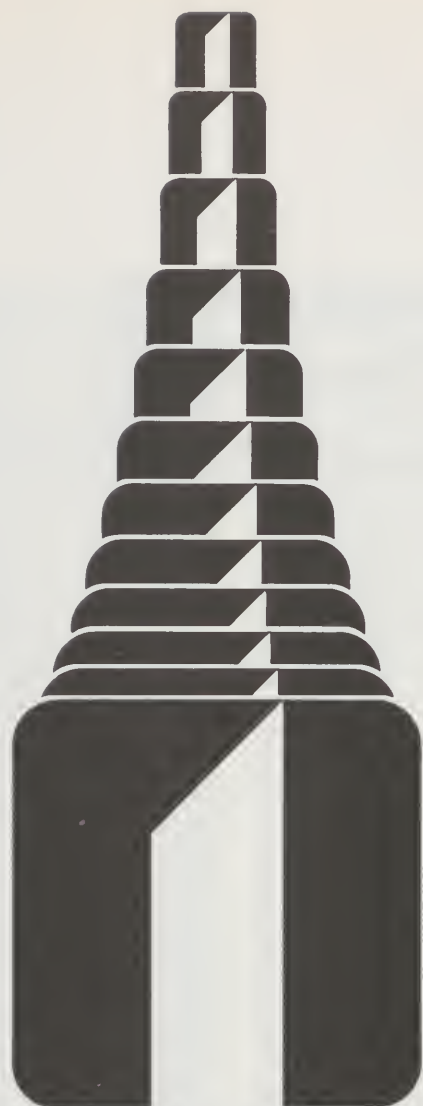
The two assassination attempts referred to above occurred in areas subject to gun control. Would another layer of legislation have prevented either attempt? Would 10 more layers of legislation have altered things any? I fear the answer is a loud NO!

Now let's look at what the agitators for gun control propose. Details are not entirely agreed on, but the backbone of their proposals is a national law requiring the registration of handguns and regulation of their sale. Let's remember that this is the same government that gave us alcoholic

control in the 1920s. More recently it has given us Narcotics and Dangerous Drug Control. Since the drug control legislation came into being, it seems that most of our public high schools (and many of the junior high schools) have become flea markets for the sale and distribution of narcotics and dangerous drugs.

Of course, this same government has given us some other "goodies": Abscam, Watergate, our miserable overpriced mail service, our litigious judicial system, our mind-boggling federal bureaucracy, and so on, *ad nauseam*.

So what improvement can anyone expect from legislation that would do nothing but disarm the law abider. It certainly would not disarm any criminal. Besides, don't we already have all kinds of laws on the books dealing with murder, shooting of innocent people and toting guns while committing crimes?



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Separation and Quantitation of Amniotic Fluid Phospholipids Using One-Dimensional Thin Layer Chromatography

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ALAN M. GOLICHOWSKI, M.D.³
Indianapolis

DURING THE PAST DECADE a number of amniotic fluid tests have been developed as aids in the assessment of fetal pulmonary maturity. The first such test to gain wide acceptance was the lecithin-to-sphingomyelin (L/S) ratio.¹ Other tests have subsequently been proposed including amniotic fluid lecithin,² saturated phosphatidylcholine,³ palmitic acid,⁴ the palmitic/stearic acid ratio,⁵ foam stability,⁶ surface tension,^{7,8} microviscosity,^{9,10} fluorescence diminution,¹¹ and optical density.^{12,13} However, the L/S ratio, as modified,^{14,15} remains the standard test for the antepartum detection of fetal pulmonary maturity.

In 1973, Gluck and Kulovich¹⁴ reported that only the disaturated (or acetone-insoluble) lecithin (AIL) had surfactant activity. They modified their original procedure for the measurement of the L/S ratio to reflect the concentration of surfactant lecithin. Hallman and co-workers^{15,16} later demonstrated that

ABSTRACT

The relative concentrations of a number of amniotic fluid phospholipids have been shown to be helpful in the antenatal assessment of fetal pulmonary maturity. Unfortunately, methods currently used for the quantitation of these phospholipids are either lengthy or require a large volume of amniotic fluid.

We describe here a one-dimensional thin layer chromatographic method for the separation and the quantitation of amniotic fluid lecithin, sphingomyelin, phosphatidylglycerol and phosphatidylinositol using commercially available silica gel plates with a preadsorbent zone. There is good correlation between lecithin-to-sphingomyelin ratios measured with this and the reference method for these assays. Other advantages are the small sample size (1.5 ml) required, and the ability to measure quantitatively the per cent of lecithin that is insoluble in acetone. The method is rapid, easy to perform, and has excellent color stability. Precision is similar to that obtained with other methods.

the amniotic fluid concentration of phosphatidylinositol (PI) and phosphatidylglycerol (PG) changed in a characteristic manner during the last trimester of pregnancy. They suggested that measurements of the concentrations of PI and PG could provide useful additional information when assessing fetal age and/or pulmonary maturity.

Gluck and associates presently recommend^{17,18} that a "fetal lung profile" consisting of the L/S ratio and the percentages of PI, PG and AIL be measured on specimens of amniotic fluid obtained to assess fetal pulmonary maturity. Unfortunately, such a "fetal lung profile" is not performed in many laboratories since the traditional methods for the separation and quantitation of amniotic fluid phospholipids involve either a lengthy two-dimensional thin layer chromatographic (TLC) procedure or require a large volume of amniotic fluid (typically 5ml) or both.

We describe here a method we have developed for the separation of the phospholipids of interest using 1.5 ml of amniotic fluid. We use a one-dimensional TLC separation on commercially available silica gel plates with a preadsorbent zone. The phospholipids are separated into discrete spots, which are easily visualized. This method is rapid, easy to perform, has good color stability and precision similar to that of other methods.

Materials and Methods

Reagents

All solvents were AR grade. The following phospholipids were purchased from Sigma Chemical Co. (St. Louis, Mo. 63178): phosphatidylinositol (1 - (3 - *sn* - phosphatidyl) - *sn* - glycerol) from egg yolk; lecithin or phosphatidylcholine (3 - *sn* - phosphatidylcholine) from soy bean; sphingomyelin (2 - acylamino - 4 - octadecane - 1 - phosphocholine - 3 - diol) from bovine brain.

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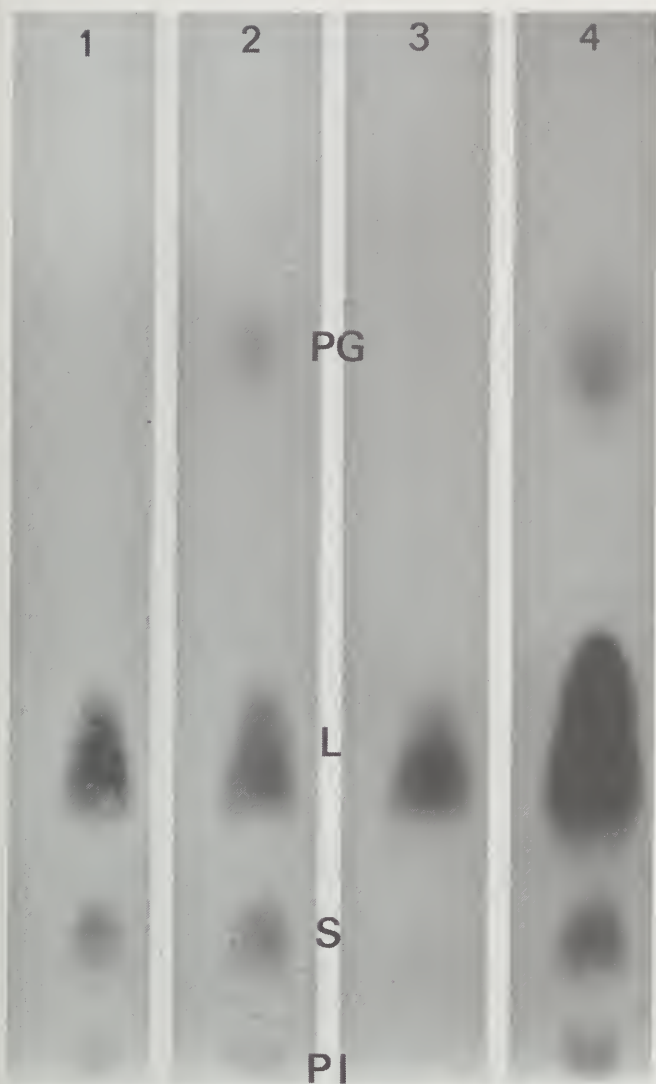


FIGURE 1—Typical chromatographic separations of amniotic fluid phospholipids consistent with mature fetal lungs. Channel 1, "immature" standard; Channel 2, patient's specimen, acetone-soluble fraction; Channel 3, patient's specimen, acetone-insoluble fraction; Channel 4, "mature" standard.

All phospholipids were chromatographically pure when checked by thin layer chromatography.

"Mature" and "immature" standards were made by mixing phospholipids in concentrations similar to those found in amniotic fluid consistent with either "mature" or "immature" fetal lungs. The "mature" standard was prepared by adding 60 mg of lecithin, 10 mg of sphingomyelin, 2.4 mg of phosphatidylglycerol and 7.2 mg of

phosphatidylinositol to a tube containing 1 ml of chloroform. The phospholipids were dissolved by gentle shaking for a few minutes with the tube warmed to 37°C. The "immature" standard was prepared in a similar manner using 28 mg of lecithin and 10 mg of sphingomyelin. Chloroform was added to both standards to give a final volume of 4 ml. The "mature" and "immature" standards were stable for three weeks when stored at 4°C.

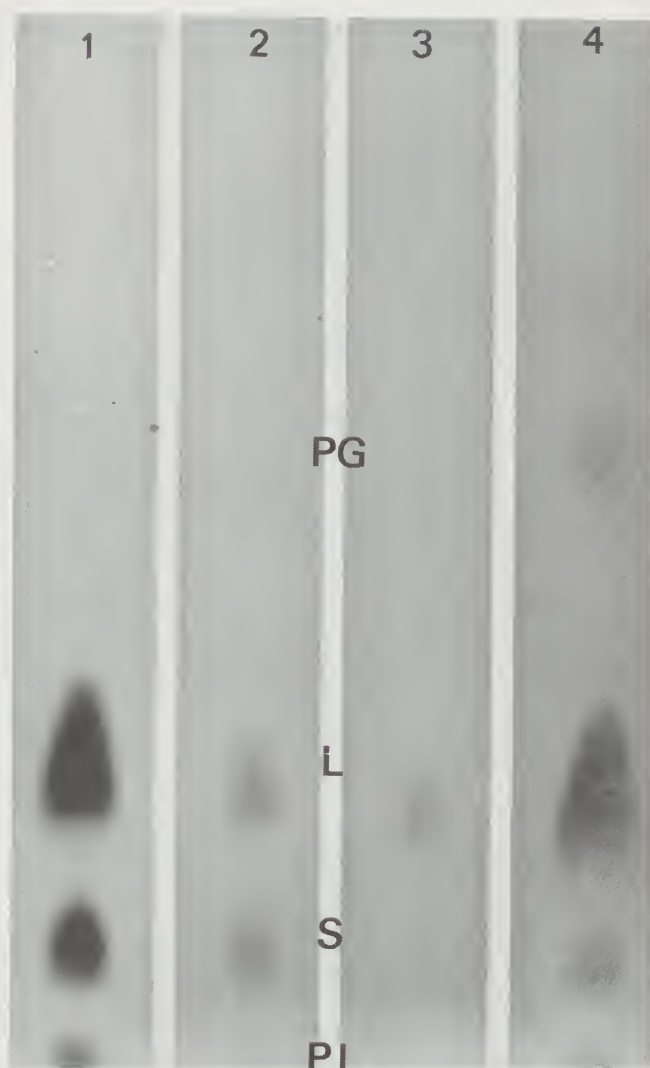


FIGURE 2—Typical chromatographic separations of amniotic fluid phospholipids consistent with immature fetal lungs. Samples were applied to channels in the same order as shown for Figure 1.

In the linearity study, lecithin and sphingomyelin were carefully weighed, mixed and dissolved to make solutions of known L/S weight ratios. For example, a solution which contained 30.0 mg of lecithin and 10.0 mg of sphingomyelin had an L/S weight ratio of 3.0.

A commercially available amniotic fluid standard with an L/S ratio of 2.0 was purchased from Supelco, Inc., Bellefonte, Pa. 10823 (Lecithin/Sphingomyelin Kit B).

TABLE 1: Analysis of a Commercially Available Amniotic Fluid Control

	Number of Analyses	Mean	Standard Deviation
Target Value	—	(2.0)*	—
Reference Method	43	1.9	0.1
One-Dimensional TLC Method	23	2.0	0.2

*An amniotic fluid standard with a reported L/S ratio of 2.0 was purchased from Supelco, Inc., Bellefonte, PA 10823. (Lecithin/Sphingomyelin Kit B).

Thin Layer Chromatography (TLC) Plates

"Linear K" preadsorbent silica gel plates (5 x 20 cm) were purchased from Whatman, Inc., Clifton, N.J. 67014. Each plate contained four sample channels.

Instrument

Densitometry was performed with a Flur/Vis transmission densitometer (Helena Laboratories, Beaumont, Tex. 77704), equipped with a 525 nm filter.

Patients

Thirty-six amniotic fluid specimens from 28 women were obtained by transabdominal amniocentesis strictly for maternal and/or fetal indications. Specimens contaminated with blood or meconium were excluded from the study.

Methods

The reference method for L/S ratio measurements was that of Gluck and Kulovich.¹⁴ Our proce-

cedure for the extraction of phospholipids from amniotic fluid was similar to the reference method with separation of the phospholipids by TLC using the solvent system described by Gotelli.¹⁹ Centrifuge the amniotic fluid for five minutes at 1850 x g to remove cells and debris.

Transfer 1.5 ml of clarified fluid to a new container, add an equal volume of methanol and mix on a rotary mixer. Add 5 ml of chloroform, mix vigorously one minute and place on ice for two minutes.

Centrifuge at 1,500 x g for five minutes and carefully transfer the chloroform (lower) layer to a clean tube and evaporate the chloroform under a stream of dry nitrogen. Place the tube on ice and add two drops of cold acetone. Usually a fluffy, white precipitate will be noted at this stage.

Add an additional 0.57 ml of cold acetone to the tube, cover and keep on ice for 15 minutes. Separate the "acetone-soluble lecithin" from the "acetone-insoluble lecithin" by centrifugation (1,500 x g, 1 minute) and decantation of the soluble fraction into a new tube. Dry both frac-

tions under a stream of dry nitrogen.

Just before chromatography, redissolve both fractions in 20-25 μ L of chloroform and spot 5 μ L of each onto the preadsorbent zone of the proper channel on a TLC plate. While the patient's samples and the two phospholipid standards may be applied to the four channels of the TLC plate in any order, we prefer to use the outside channels for the standards and the inside channels for the patient's samples.

When the solvent (chloroform/methanol/58% ammonium hydroxide, 65/30/3 by volume) front has moved 15 cm (migration time is about one hour), remove the plate and dry it at room temperature. Visualize the phospholipids by spraying with 4% sulfuric acid until the plate is barely damp; dry on a hot plate (280°C) until the brown phospholipid spots appear.

The per cents of PG, PI, S, and L are measured densitometrically. The per cent lecithin divided by the per cent sphingomyelin represents the densitometric L/S ratio which is usually referred to simply as the L/S ratio. The per cent of AIL is measured by rotating the plate 90 degrees and scanning the two patient lecithin peaks.

Results

Separation of Phospholipids

Typical phospholipid separations for both standards and patients' specimens are shown in *Figures 1 and 2*.

Accuracy Studies

Comparison to the Reference Method. The L/S ratio was measured on 36 samples of amniotic fluid using both the proposed and the reference methods. Results of both analyses were statistically compared as described by Westgard.²⁰ As seen in *Figure 3*, there was good correlation between methods. When values for the L/S ratios were grouped according to

TABLE 2: Precision of the L/S Ratio Measured with the One-Dimensional Thin Layer Chromatographic Method

	Number of Measurements	Mean	Standard Deviation	Coefficient of Variation
Within-Day Precision				
Pooled Amniotic Fluid	10	2.7	0.23	8.5
"Immature" Standard	20	1.8	0.06	3.3
"Mature" Standard	20	4.6	0.15	3.3
Between-Day Precision				
Pooled Amniotic Fluid	10	2.7	0.25	9.3
"Immature" Standard	13	1.6	0.21	13.1
"Mature" Standard	17	4.2	0.39	9.3

maturity using the classification of Gluck,¹⁷ 22 of 36 (60%) were in the same maturity group and 35 of 36 (97%) were within one group of each other. In no case was the L/S ratio "immature" or "premature" by one method and "mature" by the other method.

Analysis of Commercial Controls. The L/S ratio of a commercially available amniotic fluid control (target value 2.0, see Materials and Methods) was measured using both the reference and proposed methods. The number of analyses, mean and standard deviation for the reference and proposed methods are shown in Table 1.

Recovery of Standards. Known amounts of lecithin were added to a pool of amniotic fluid with a measured L/S ratio of 2.2. The expected densitometric L/S ratios were 3.6, 5.9, and 8.4, while the measured L/S ratios were 3.8, 6.1, and 9.0, respectively.

Precision Studies

The precision of the method was evaluated using both standards and amniotic fluid pools. Within-day and between-day precision (Table 2) were calculated from results of multiple analyses of a single "mature" or "immature" standard preparation. All of the standards prepared and analyzed to date have demonstrated results similar to those shown. The pool of amniotic fluid used in this study was prepared by combining aliquots from six patients.

Linearity

As shown in Figure 4, the densitometric L/S ratio is linear between 1.2 and 6.4, which is equivalent to L/S weight ratios of 0.4 and 9, respectively.

Color Stability

The final color was stable for at least two weeks when the developed TLC plates were stored in the dark.

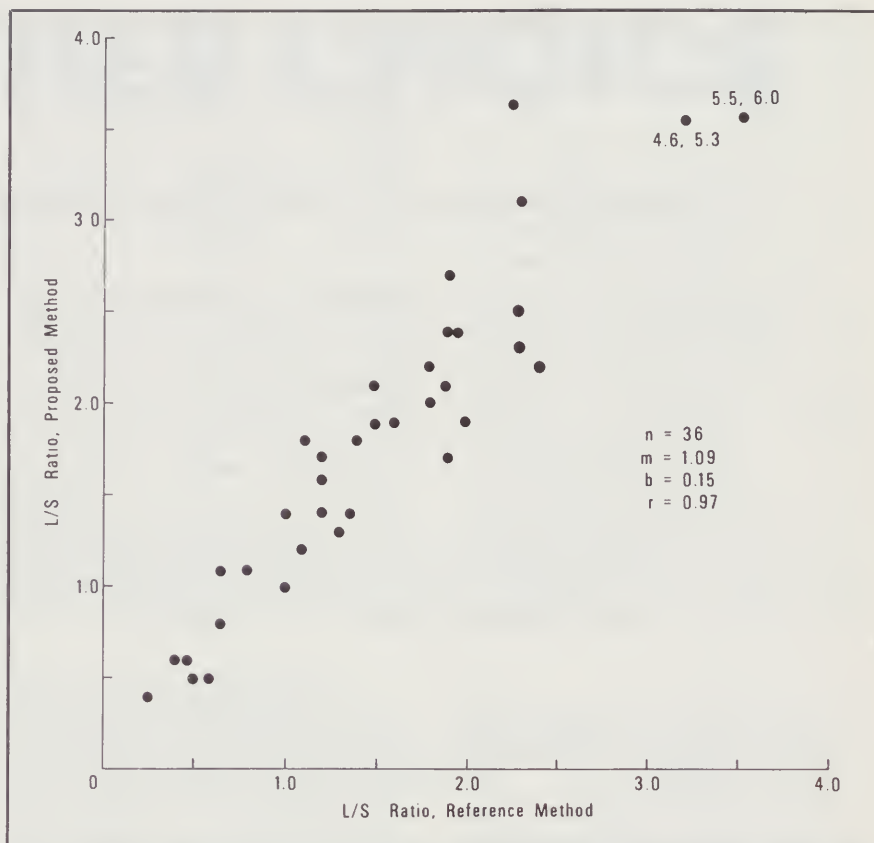


FIGURE 3—Comparison of L/S ratios measured with both the proposed one-dimensional TLC and reference methods.

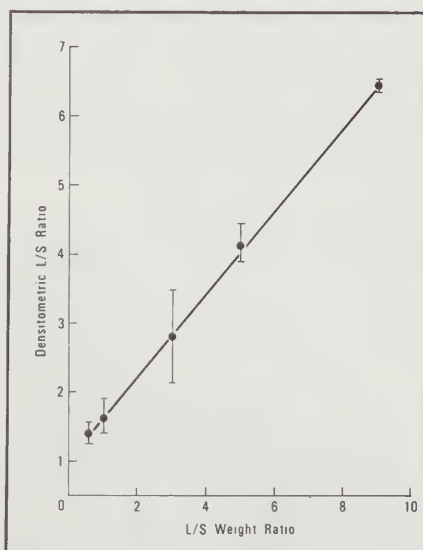


FIGURE 4—Comparison of densitometric and weight L/S ratios. Each point is the mean \pm 1 S.D. of 2 to 4 individual measurements made on different working days.

No significant changes in any of the phospholipid fractions were noted when either standards' or patients' chromatograms were examined repeatedly within 14 days after processing.

Discussion

Frequent criticisms of TLC methods for L/S ratio measurements are that they are "cumbersome,"²¹ "require a special, well-equipped laboratory,"²¹ and are "unsuitable for a routine laboratory."²² The use of commercial TLC plates with a preadsorbent zone eliminates many of the effects of personal technique which frequently hinder TLC methods. This procedure requires no unusual apparatus or modifications of equipment. The only instrument used, a

densitometer, is available in any clinical chemistry laboratory already performing electrophoretic separations.

An important advantage of the one-dimensional TLC method described here is the small sample volume required when compared to the 3-5 ml of amniotic fluid needed to perform other TLC methods. Only 1.5 ml of amniotic fluid is used in the initial extraction and only about one-fourth of the final phospholipid concentrate is actually used in the TLC separation (5 of 20-25 uL). In theory then, this procedure could easily be scaled down to use as small a volume as 0.5 ml. We have not investigated this possibility since we feel that the extraction and precipitation steps are

easier to perform with the 1.5 ml sample.

We recommend using adjacent channels on the TLC plate for the separation of the acetone-soluble and acetone-insoluble fractions. Although the usefulness of the per cent AIL is debatable,^{3,17,23,24} the extra time involved in making this measurement, when desired, is less than five minutes when the separation is performed as described.

The time required to perform the entire procedure is about one hour of actual working time. The total in-laboratory testing interval is usually 2.5-3.0 hours. We routinely measure and report the percentages of PI, PG and AIL in addition to the L/S ratio on all specimens of amniotic fluid submitted for anal-

ysis. There is good separation and quantitation of the important amniotic fluid phospholipids using the one-dimensional TLC method described here. The precision of L/S ratio measurements with this method is similar to the precision reported for other TLC procedures.^{19,21,25}

In conclusion, we have developed a simplified method for the separation and quantitation of the amniotic fluid phospholipids currently thought to be helpful in the antepartum diagnosis of fetal pulmonary maturity. This procedure avoids many of the problems encountered with other methods and we hope it will stimulate interest in providing greater availability of these important tests.

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Perforation of the Rectum by Too Large a Bardex Balloon Catheter

RICHARD J. NOVEROSKE, M.D.
Evansville

A NUMBER OF YEARS ago an attorney asked me to review a file on an elderly client of his; the patient had sustained a perforation of the rectum during a barium enema, done with a Bardex balloon rectal catheter. I could find nothing wrong with the technique from the information I had, and reported so to the attorney. He was disappointed.

Since then I have had a similar case of perforation of the rectum. I am relieved that I did not find fault with the other radiologist years before.

Case Presentation

Chief Complaint: The patient was transferred from a nursing home due to weight loss, loss of appetite, and an episode of "smothering sensation."

The patient was taken to surgery promptly and, under general anesthesia, the abdomen was opened. Exploration of the abdomen disclosed several diverticula in the lower part of the descending colon and sigmoid colon. The peritoneum covering the pelvic cavity was

edematous and showed signs of internal bleeding, but the peritoneum was intact. Much sero-sanguinous fluid was removed from the pelvic cavity. No gross perforation of the peritoneum was found. Other parts of the abdomen were essentially normal. The descending and transverse colon contained several diverticula, but no signs of inflammation. The small bowel, stomach, liver, spleen and pancreas were felt to be normal.

Because of the perforation of the rectum, a transverse colostomy to divert the fecal stream was created. The patient tolerated the surgery fairly well.

Postoperatively there was some

loss of tone in the intestines, treated with a naso-gastric suction tube and intravenous liquids. Antibiotics and Sol-U-Medrol were given intravenously.

There was some hypotension postoperatively, and this was corrected with Levophed intravenously, infused slowly, which kept the blood pressure within a normal range.

Also after surgery, because of the patient's poor appetite and her reluctance to eat, it was necessary to insert a feeding tube for most of the hospitalization. Toward the end of the hospital stay, the patient removed the feeding tube herself and would not tolerate it.



Fig. 1: The large Bardex balloon in the rectum is seen. There is passage of barium sulfate out of the rectum into the soft tissue on the left of the rectum. The barium is also dissecting proximally toward the rectosigmoid on the right.

The author is certified by the American Board of Radiology and is a member of the Radiological Society of North America, the International College of Surgeons and the American Roentgen Ray Society.



Fig. 2: The barium filled colon appears grossly normal, except for the perforation around the rectum.

History of Present Illness: The patient is a 66-year-old white woman who was admitted from a nursing home with the above symptoms and with the admitting diagnosis of weight loss and rule out malabsorption syndrome. The patient's memory is poor. At times the patient is apparently incontinent of urine and feces.

Physical Examination: At the time of admission, the patient was lying supine and was conscious. There were no signs of distress. She appeared much older than her stated age of 66 years. She had generalized dry and flaking skin. Blood pressure was 90/60. Pulse was 60 and regular. Respirations were 16. Temperature was 36°C. She was unable to stand for height and weight recordings. There was no examination with a sigmoidoscope or proctoscope.

Normal bowel sounds were present in the abdomen. The patient was not tender to abdominal examination. No masses were felt. During the work-up a barium enema examination of the colon was ordered.

Course: When the patient came to the x-ray department, an attempt at a barium enema was done with a Bardex balloon catheter that had received five pumps of the Baumanometer bulb—an estimated 150cc of air injected. The patient had considerable loss of anal sphincter tone, noted prior to insertion of the Bardex balloon catheter. One spot film was made of the rectosigmoid, and much feces was apparent in the colon. The patient strained a great deal and expelled the inflated balloon catheter, barium, and feces on the x-ray table top; so we cleaned her up and again inserted the Bardex balloon catheter. After five pumps she was still leaking feces and barium; so the balloon was pumped to a considerably larger size by the technologist. About 15 pumps of the Baumanometer bulb were used to inflate the Bardex balloon, and this would be about 450cc of air.

At fluoroscopy the second time, I saw a large Bardex balloon catheter. It held this time, and we were

able to fill the colon despite the patient's straining.

Unfortunately, the films showed a perforation of the rectum with some barium in the soft tissue around the rectum and dissecting toward the rectosigmoid, proximally. This perforation was not present on the initial spot film of the rectosigmoid, made during the first attempt to fill the colon.

The attending physician and surgeon were notified promptly of this extra-peritoneal perforation of the rectum, with barium in the soft tissue alongside the rectum.

The films showed some scattered feces still present in the colon, even after the patient had evacuated the first time. But there was no good evidence for a tumor of the colon. I did not see any inflammatory disease involving the colon. There was some redundancy of the colon, consistent with constipation.

Post-evacuation films showed extra-peritoneal barium in the soft tissues around the rectum and sigmoid. There was still much barium



Fig. 3: Most of the barium remains in the colon after removal of the Bardex balloon rectal catheter. The abnormal barium is seen around the rectum and near the rectosigmoid. There are heavy metal deposits in the buttocks.

in the colon on the post-evacuation films.

It was thought that the patient's lack of cooperation and confusion were secondary to cerebral arteriosclerosis.

At the end of the hospitalization the patient was still draining a purulent discharge from the rectum. This was cultured and revealed infection with *Pseudomonas aeruginosa*, sensitive to Amiken and Carbenicillin.

At the time of discharge the patient was sitting up in a chair on a daily basis.

X-ray Films: Pertinent films are reproduced.

Discussion

Barium sulfate itself is non-toxic, but the body often forms foreign body granulomas around it. If the barium sulfate is contaminated with feces, there can be a violent inflammatory reaction and infection due to the feces.

In the past I thought that the rectum could tolerate any size balloon including a very large Bardex balloon catheter, because of the large capacity of the rectal ampulla and the circumferential support from the soft tissue around the rectum. The intramural change in pressure across the wall of the rectum, even with a large balloon, should be very small because of this circumferential support from surrounding soft tissue. This situation in the rectum is different from that of the rest of the colon and the small intestine, where there is no circumferential soft tissue. It is the difference between poking a hole in a disposable paper tissue held in the air by the hands of another person, and trying to poke a hole in the same paper tissue when it is lying on a tabletop—where there is little change in intramural pressure within the tissue because of the support of the tabletop which takes all the pressure change.



Fig. 4: This film was made 13 days after the perforation of the rectum and surgery to explore the abdomen and create a colostomy. The intestines are still dilated by reflex loss of tone. There is also dilation of the stomach. The barium in the peri-rectal soft tissue remains prominent.

Burt² showed in his classic autopsy data that the rectums dissected out of the pelvis of three adult patients perforated at 109, 198, and 258 mm Hg; these were the pressures at which the mucosa perforated.

Nathan and Kohen⁴ reported 24 cases with volumes of air in the balloons ranging from 150cc to 350cc and resulting pressures on the rectum of 0 to 43 mm Hg. In two patients requiring unusual insufflation of the Bardex catheter, 450cc was used in one and created 20 mm Hg. pressure against the rectal wall; the second required 650cc air and created 30 mm Hg rectal pressure. These large sizes were needed to prevent expulsion of the barium enema.

I have used large Bardex balloon catheters in the rectum in the past when no other way was feasible, and I have always thought that it was safe—that I would not perforate the

rectum—because of the data mentioned above.

But after the experience with this patient, I do not feel so secure as I once did. It is apparent that rarely these large balloons can split the mucosa and cause extraperitoneal leakage of barium and feces, and a barium granuloma may form. While death usually is not a problem, subsequent painful abscess and recurrent infections with discharge can be a problem.

The likelihood of loss of elastic tissue in this patient came to mind. She looked older than 66 years of age; one physician said, "She appears ancient." Another said, "She looks about 90." Examination of a fragment of skin from the surgery done to create the colostomy was done with Verhoeff's elastic stain, to evaluate the tissue for elastic tissue. The pathologist reported, "Normal elastic tissue content."

One could also conjecture about the long range effects from the old lues, treated in the remote past.

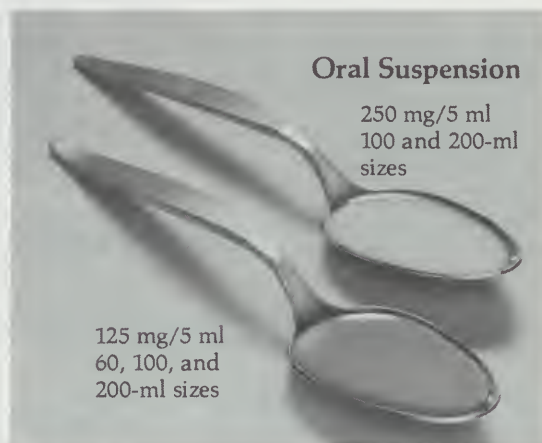
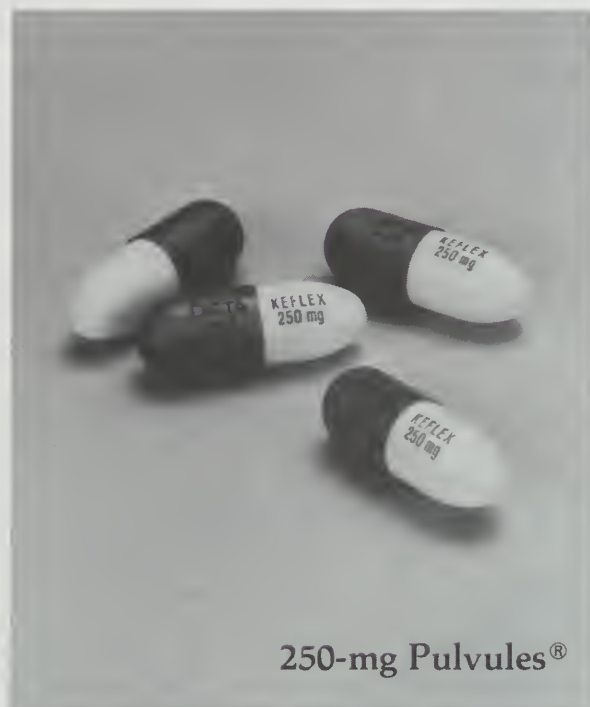
Summary

It is difficult to set the limits on rectal catheter balloon size, particularly when one is trying to get the job done—to examine an incontinent patient.

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Chemotherapy for Advanced Refractory Hodgkin's Disease

Lawrence H. Einhorn, M.D.
Indiana University Medical Center

Hodgkin's Disease accounts for only 1% of all new cancers in the United States. Despite this rarity, Hodgkin's Disease is an extremely important malignancy because of its high cure rate with radiotherapy when localized (Stage I and II), and the substantial improvement in median survival and cure with combination chemotherapy for disseminated disease (Stage III and IV).

The standard chemotherapy for advanced Hodgkin's Disease is a combination of nitrogen mustard, oncovin, prednisone, and procarbazine (MOPP). Although MOPP has an 80% complete remission rate, approximately 40-50% of such patients will ultimately relapse and be candidates for secondary chemotherapy. Many of these patients will achieve durable second complete remissions with MOPP if they relapsed more than six months from their last course of MOPP.

Despite the excellent advances in the past decade with MOPP, approximately 40-50% of these patients with advanced disease will require some form of secondary chemotherapy, either because they never achieved a complete remission or because they are refractory to MOPP.

A combination of adriamycin, bleomycin, vinblastine, and DTIC (ABVD) has been widely used in the situation. Although the results are quite good in Italy, where this regimen was devised, the success rate in the U.S. with ABVD has been considerably worse, with few, if any, patients achieving a complete remission that is durable (i.e., 2+ years continuous disease-free survival).

In January 1978, we started an aggressive salvage regimen for re-

fractory advanced Hodgkin's Disease, utilizing higher dosages of ABVD plus adding a fifth active drug, CCNU. Although this five-drug regimen produced considerable myelosuppression, it also produced impressive short-term and optimistically long-term results. Six of 12 patients achieved a complete remission, two others are continuously disease-free for 2+ years, and two additional patients have been in a continuous complete remission for 18 months. Many of these patients failed to respond initially to MOPP.

Because of the rarity of this tumor, it has been very difficult to accrue a significant patient population for this important study. We would greatly appreciate the referral of patients with Hodgkin's Disease to Indiana University; the majority of the chemotherapy can be done by the referring physician, if desired.

American Cancer Society National Conference— Gastrointestinal Cancer 1981

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For further information write: Nicholas G. Bottiglieri, M.D., American Cancer Society, National Conference-Gastrointestinal Cancer-1981, 777 Third Avenue, New York, New York 10017.

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Does Obesity Increase the Risk of Cardiac Surgery?

ALAN T. MARTY, M.D.
JOHN F. ANSBRO, M.D.
Evansville

"DAY AFTER DAY, an obese person finds himself discriminated against in privileges, opportunities, and status that the leaner persons get without struggling for them."¹ Elective surgery, for example, is often withheld until the patient can lose extra weight. Presumably, this hesitancy to operate upon obese patients is not based on a prejudice against size. Rather, physicians widely assume that obesity subjects a patient to excessive surgical risk.

This assumption is apparently based upon clinical impressions developed before the modern era of anesthesia and intensive perioperative care. The 1979 edition of *Cecil Textbook of Medicine*,² for example, states that "surgical risk is in general greater in obesity. Mortality figures for a variety of surgical procedures may be two to threefold higher for

the obese than the non-obese." No data, however, are given to substantiate this statement.

Recently, we were compelled to perform a quadruple aortocoronary bypass on a 323-pound, 76-year-old patient with unstable angina. His successful outcome prompted us to review our surgical experience with very obese patients. To our surprise, we have found that obesity does not increase the risk of coronary artery bypass surgery.

Clinical Material and Methods

The hospital and office records of 35 consecutive coronary bypass patients who weighed 100 kg or more were compared with those of 35 consecutive control patients who weighed an average of 83.5 kg. The heavy patients averaged 28% above their highest desirable weight, assuming that all of them were large-framed. These ideal weights were determined from the Metropolitan Life Insurance tables. The control patients weighed an average of 5% more than their ideal weight (See Table 1).

Twelve heavy and 17 control patients had chronic stable angina. Twenty-three heavy and 18 control patients presented with unstable angina. "Unstable angina" was defined as continuing angina while at rest in the hospital.

All patients were given preoperative instruction by nurses, physical and respiratory therapists, and physicians. Most patients were maintained on a mechanical volume ventilator overnight, although some patients were extubated

within three to six hours of surgery. Prophylactic PEEP (5 to 7 cm H₂O) was used liberally. After extubation, a trifold incentive spirometer was used routinely. IPPB was used rarely, e.g., when broncho-spasm was present.

All patients were ambulated early after surgery. Average stay in the ICU was 2.2 days in both groups. Chest roentgenograms were obtained on the first, second, and fifth or sixth hospital days.

Results

No patient in either group died after surgery. No patient required a reoperation for bleeding. Only one heavy patient had a postoperative fever above 101°F, as did one control patient. No patient exhibited thrombophlebitis or radiologic evidence of lobar atelectasis. Thirteen heavy patients exhibited either "platelike atelectasis" or "minimal under-aeration," as reported by the radiologist. Eleven control patients exhibited these same roentgenographic findings.

The average number of aortocoronary vein grafts and the average cardio-pulmonary bypass flow rates were both slightly lower in heavy patients (3.3 vs 3.7 grafts per patient and 2.31 vs 2.38 l/min/m²). Heavy patients required more intraoperative sodium bicarbonate (49 vs 35 meq), but pump and cross clamp times were similar (See Table 2).

One patient in each group displayed EKG evidence of a perioperative infarction (2.8% incidence). The average and median length of stay after surgery were nine and

The authors, both cardio-vascular surgeons, practice at Deaconess Hospital, Inc., Evansville, Ind. The substance of this paper was presented at the XV World Congress of the International Cardiovascular Society in September 1981.

Reprints and correspondence: Alan T. Marty, M.D., 350 W. Columbia St., Suite 350, Evansville, Ind. 47710.

Table 1: Average Features

	Heavy Patients	Control Patients
AGE	54.9	56.2
WEIGHT	107.7 kg	83.5 kg
HEIGHT	180.3 cm	175 cm
BODY SURFACE AREA	2.25 m ²	1.99 m ²

Table 2: Intraoperative Average

	Heavy Patients	Control Patients
VEIN GRAFTS PER PATIENT	3.3	3.7
PUMP FLOW	2.31 l/min/m ²	2.38 l/min/m ²
PUMP TIMES	106 min	109 min
AORTIC CROSS CLAMP TIME	63.9 min	66 min
LOWEST ESOPH. TEMP.	28° c	28° c
NaHCO ₃	49 meq	35 meq

Table 3: Postoperative Findings

	Heavy Patients	Control Patients
TEMP > 101° F	1	1
TEMP = 100-101	7	6
LOBAR ATELECTASIS	0	0
MINOR X-RAY CHANGES	13	11
AVERAGE LENGTH OF STAY	9 days	8 days
MEDIAN LENGTH OF STAY	8 days	7 days

Table 4: Mortality and Morbidity

	Heavy Patients	Control Patients
MORTALITY	0	0
PERIOPERATIVE M.I.	1	1
REEXPLORATION FOR BLEEDING	0	0
LEG SKIN FLAP NECROSIS	2	1
LATE WOUND INFECTION, SUBCUTANEOUS	2	0

eight days in heavy patients, compared to eight and seven days in control patients (See Table 3).

The only difference in morbidity related to wound healing. Two heavy patients developed late subcutaneous wound infections. These appeared three weeks after surgery, while both patients were at home. Both healed within a few weeks using conservative measures. Two heavy patients and one control patient displayed some skin edge necrosis of their thigh incisions. This complication delayed the discharge of the two heavy patients three and nine days beyond their average length of stay (See Table 4).

Discussion

Obesity is generally considered a health problem. One immediately thinks of the correlation between blood pressure and relative weight: For some individuals, weight loss is associated with a decrease in blood pressure, and vice versa.³ Obesity also may increase the incidence of angina pectoris,⁴ sudden death,⁴ and high blood cholesterol and triglyceride levels.⁵

The concept that obesity results in an increased surgical risk,² however, has not been scrutinized recently. Apparently, this concept arose in times that predate modern methods of perioperative care. Nevertheless, we often encounter markedly obese patients who have been told to avoid major surgery "because it is too risky." We have examined this assumption by carefully reviewing our coronary bypass surgical results in a consecutive series of obese patients, all of whom weighed more than 100 kg and averaged 28% above their ideal weight.

Surprisingly, we found that surgical risk was not increased in these obese patients. Mortality rates, length of surgery, and the incidence of atelectasis and thrombophlebitis in obese patients were as low as in non-obese patients. Wound infections in obese patients may, however, be more likely.

Because heart disease is common in obese people, the fact that they can safely undergo coronary bypass surgery should therefore become more widely known.

Addendum

Since this report was submitted, we have performed aortocoronary bypass surgery on 25 additional obese patients who weighed 100 kg or more. There were no deaths, no atelectasis, no thrombophlebitis, and no wound infections. Post-operative length of stay averaged eight days. These results compare quite favorably with our overall results for coronary bypass surgery (1% mortality for stable angina and 2% for unstable angina).

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Klinefelter Syndrome (47, XXY): Variation in Phenotype

Chromosome analysis is necessary in the diagnosis of Klinefelter's syndrome, which is the most common cause of hypogonadism and infertility among males . . .

DIANE F. MINKA, Ph.D.
JAMES A. SCHEIDLER, M.D.
RAY M. ANTLEY, M.D.
Indianapolis

ONE-HALF OF ONE per cent of all newborns have a chromosome abnormality. Some of these are in high profile while others are not. The Down Syndrome (previously mongolism), for example, is a frequent and readily recognized chromosome disorder, while the Klinefelter syndrome is equally frequent but much less recognizable. The diagnosis of this syndrome is necessary for appropriate treatment. Klinefelter syndrome is considered to be the single most common cause of hypogonadism and infertility, affecting about 1 in 500 males. The incidence among males in subfertility clinics may be as high as 1 in 10.

The normal human has 46 chromosomes, 44 autosomes plus two sex chromosomes. Sex chromosome constitution is "XY" in males and "XX" in females. In the Klinefelter syndrome, males have an additional X chromosome. The presence of this extra chromosome has an effect upon the developing individual, which often goes unrecognized until puberty or during adulthood.

Physical Findings

Few distinguishing features are present in prepubertal XXY, Klinefelter syndrome males. At the age when puberty normally occurs, the testes fail to enlarge, remaining firm and small with average length <2.5 cm. Testes are descended in almost all cases. The penis is often of normal size, but can be short. Teenagers or adults with true Klinefelter syndrome invariably have small testes and azoospermia.

The small testes are associated with low levels of testosterone production and the attendant manifestations of hypogonadism. Facial hair usually is sparse and axillary hair may be deficient. Gonadotropins are elevated in about 75%. One-fourth to one-half develop true gynecomastia. Stature of the subjects is variable and usually not a diagnostic feature. Some subjects are tall and thin while others may be smaller and of normal masculine morphology.

While some Klinefelter syndrome patients have been found to be

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mentally deficient, the majority (75%) are of normal intelligence. Some personality, behavioral or psychiatric abnormalities also have been noted.

Early diagnosis in childhood is helpful in that therapy started at an early age (11 or 12) leads to a more typical adolescent development and prevents features of testosterone insufficiency. Clues toward diagnosis in childhood include a tendency toward longer limbs, a low upper to lower segment ratio, relatively small penis or testes, and possible behavior problems.

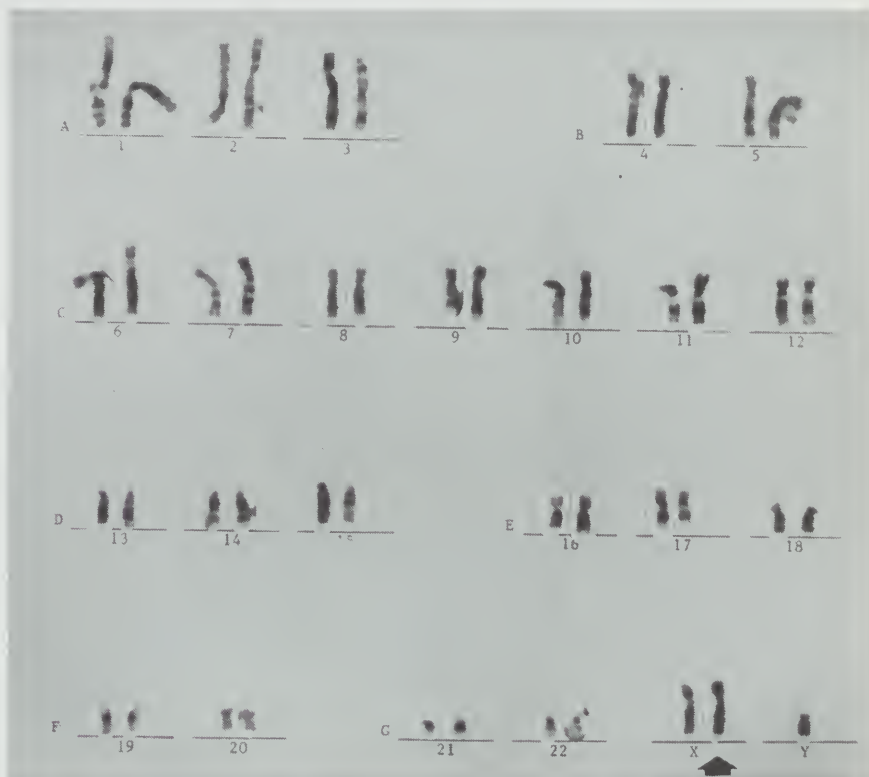
Etiology

Studies on the origin of the extra chromosome indicate 60% are due to nondisjunction in mothers and 40% to nondisjunction in fathers. The average age of mothers of Klinefelter syndrome males is 32 as compared to 28 for mothers of normal males, indicating that older ova are more prone to nondisjunction. Nondisjunction occurs during meiosis and results in an unequal distribution of chromosomes to the gametes. The reasons for abnormal meiosis are unknown.

True Klinefelter syndrome (47, XXY) occurs in 80% of cases. The most common variant is 46,XY/47,XXY mosaicism. Spermatogenesis of varying stages occasionally has been noted in mosaic individuals. Klinefelter syndrome occurs sporadically with no increased incidence among siblings.

Diagnosis

Males suspected of having Klinefelter syndrome can be screened for an additional X chromosome (Barr body) by ordering a buccal smear. All X-chromatin positive males should have a chromosome analysis of 20 or more cells. This can be done by ordering a peripheral blood culture which requires 5 mls of hep-



Klinefelter Karyotype: 47, XXY showing an additional X chromosome (arrow). Chromosomes were G-banded with trypsin and stained with Giemsa (GTG).

arinized blood. The test takes six to eight weeks to complete.

Treatment

Treatment is essentially symptomatic. Exogenous androgen therapy will increase facial, axillary and body hair growth, promote greater muscular size and definition, increase penile size, and improve sexual performance. The authors prefer a depot form of testosterone (Testosterone evanthate or cypionate), giving 100 to 200 mg every one to two weeks, which either the patient or a family member can be taught to administer at home. Though oral preparations are more easily administered, they have a greater incidence of drug-related cholestatic jaundice and a less predictable response.

Gynecomastia that causes considerable psychic trauma may re-

quire surgical removal. Concomitant personality disorders may require psychiatric treatment. Infertility associated with Klinefelter syndrome has no treatment. Artificial insemination and adoption are offered as parenting alternatives.

Summary

The incidence of Klinefelter syndrome is 1 in 500 among males and may be as high as 1 in 10 among males attending subfertility clinics. The syndrome is difficult to ascertain because it lacks significant dysmorphology. Since treatment and counseling are available for affected individuals, and accurate diagnosis is desirable. The most constant features of Klinefelter syndrome are small testes and infertility. Definitive diagnosis is made by chromosome analysis.

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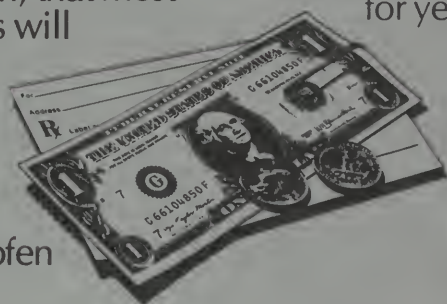
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CONTRAINDICATIONS: Patients hypersensitive to ibuprofen, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory drugs (see WARNINGS).

WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see CONTRAINDICATIONS). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can end fatally; however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease and only after consulting the ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy, this therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: Coumarin-type anticoagulant: The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS

Incidence greater than 1%

Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4% to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating or flatulence). **Central Nervous System:** dizziness*, headache, nervousness. **Dermatologic:** rash* (including maculopapular type), pruritus. **Special Senses:** tinnitus. **Metabolic:** decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** depression, insomnia. **Dermatologic:** vesiculobullous eruptions, urticaria, erythema multiforme. **Special Senses:** amblyopia (see PRECAUTION). **Hematologic:** leukopenia, decreased hemoglobin and hematocrit. **Cardiovascular:** congestive heart failure in patients with marginal cardiac function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** paresthesias, hallucinations, dream abnormalities. **Dermatologic:** apecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** gynecomastia, hypoglycemia. **Cardiovascular:** arrhythmia (Sinus tachycardia, bradycardia, and palpitation). **Renal:** decreased creatinine clearance, polyuria, azotemia.

OVERDOSAGE: Acute overdosage, the stomach should be emptied. Rufen is acidic and excreted in the urine; alkaline diuresis may benefit.

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CAUTION: Federal law prohibits dispensing without prescription.

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Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	DESIPRAMINE	DESERPIDINE
<i>Category:</i>	Antidepressant	Antihypertensive
<i>Brand Name:</i>	Norpramin, Merrell-Dow Pertofrane, USV	Harmonyl, Abbott
<i>Generic Name:</i>	Desipramine HCl	Deserpidine
<i>Dosage Forms:</i>	Tablets, Capsules	Tablets
	CHLOROMYCETIN	CHLORAMBUCIL
<i>Category:</i>	Antibiotic	Antineoplastic
<i>Brand Name:</i>	Chloromycetin, Parke-Davis	Leukeran, BW
<i>Generic Name:</i>	Chloramphenicol	Chlorambucil
<i>Dosage Forms:</i>	Capsules, Injection, Otic Drops, Ophthalm. Solution & Ointment	Tablets

Physician Recognition Awards

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned, and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.


Acher, Robert P., Greensburg	Kaye, Robert C., Rensselaer	Price, Francis W., Indianapolis
Acker, Herbert K. J., Fort Wayne	Keene, Jack K., Indianapolis	Priddy, Marvin E., Fort Wayne
Baker, Leslie M., Aurora	Kennedy, David B., Kokomo	Pruitt, Jacob E., Gary
Bartel, Danny R., Indianapolis	Koh, Kang I., Hobart	Pyle, Susan K., Union City
Barton, Reginald R., Gary	Kuhn, Frederick L., South Bend	Ramker, Daniel T., Hammond
Becker, Gary J., Indianapolis	Krol, John E., Indianapolis	Richmond, Harold W., Columbus
Boha, Rudolph L., New Albany	Kruse, Stephen K., Indianapolis	Rigaux, A. J., South Bend
Boyd, Carl R., Logansport	Lardizabal, J. M., Bloomfield	Roch, L. Marshall, Muncie
Bradenberger, E. J., Fort Wayne	Larson, Michael S., Munster	Rose, Robert E., Spencer
Breitweiser, T. D., Madison	Leipold, Jon D., South Bend	Sartore, Gilbert A., Evansville
Castueras, F. T., Salem	Leman, Eugene, Merrillville	Siebenmorgen, Paul, Terre Haute
Chamberlain, D. S., Mishawaka	Lenox, Jack L., Lebanon	Silvers, L. M., N. Manchester
Conrad, Henry W., Lawrenceburg	Lewis, Merral B., Evansville	Simms, O. M., Fort Wayne
Cooper, Daniel F., Indianapolis	Loewenstein, Werner L., Terre Haute	Smith, Jerald E., Munster
Countryman, Frank W., Indianapolis	Marty, Alan T., Evansville	Spence, W. C., Knightstown
Echsner, Herman J., Columbus	Mason, Earl J., Gary	Stephens, Susan A., Carmel
Fortuna, Frank W., Beech Grove	Mattox, Dean L., LaGrange	Stoller, Harry J., South Bend
Frieske, David A., Valparaiso	Maust, Rodney L., Indianapolis	Stucky, Jerry L., Fort Wayne
Frahm, Charles J., East Chicago	McCalla, Charles X., Paoli	Taube, Robert R., Terre Haute
Gabrys, G. T., Fort Wayne	McClary, Charles W., Bloomington	Taylor, James A., Anderson
Gehring, Gordon G., Vincennes	Meissel, Robert L., Terre Haute	Thompson, W. R., Winamac
Gentile, Jonathan P., Fort Wayne	Mendelson, Stanley M., Kokomo	Thornberry, Robert L., Indianapolis
Goebel, C. W., Fort Wayne	Merkle, George W., Bluffton	Triplett, Douglas A., Muncie
Guevara, T. G., Marion	Metzger, Philip P., Fort Wayne	Turner, Michael S., Indianapolis
Gupta, R. C., Merrillville	Miethke, Richard P., Kokomo	Valenzuela, R. D., Gary
Hachmeister, C. W., Evansville	Misko, Lawrence J., Indianapolis	Wagner, Richard A., Newburgh
Hamm, Charles W., Indianapolis	Mosher, Constance A., Muncie	Webb, Harry D., Anderson
Hardin, Stephen L., Martinsville	Nasr, Amin T., Muncie	Watson, Leo G., Kokomo
Hathaway, W. H., Auburn	Naval, J. C., South Bend	Wilson, Donald L., Indianapolis
Hollenberg, Alfred E., Hagerstown	Noonan, Charles A., LaPorte	Wooten, Mona F., Evansville
Hollenberg, Edward L., Winamac	Paine, George E., Bristol	Wooten, William G., Evansville
Holwerda, Harry L., Demotte	Patel, Suresh M., Connersville	Yingling, Robert J., Indianapolis
Horton, Douglas J., Indianapolis	Pierce, Gene S., New Albany	Young, Steven R., Indianapolis
Jackson, Howard C., Madison	Powell, Richard C., Indianapolis	Zink, Robert O., Madison
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DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandro-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchidism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioğlu, M.D.: Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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PUBLIC HEALTH NOTES

Healthy babies and children are a prime goal of the Indiana Supplemental Food Program for Women, Infants and Children (commonly known as "WIC"). A nutrition intervention program, WIC is helping 35,000 Hoosier women, infants and children. Through WIC, pregnant and postpartum women, nursing mothers and children from birth to age 5 who are known to be at nutritional risk, receive nutrition counseling, supplementary foods of high nutritional value and health care referrals.

A nutrition program, such as WIC, is critically important because of the link between a mother's diet during pregnancy and the health of her infant at birth. Poor diets contribute to the rate of low birth weight infants which in turn contribute to higher infant mortality rates, birth defects and mental retardation. Normal growth and development of young children also is dependent upon the quantity and quality of the diet.

In recognition of the important role that nutrition has in the health of pregnant women and young children, WIC was created by Congress in 1972 as a small pilot program. It has since grown into a national program that benefits more than 1.3 million women and children at an annual cost of \$750 million. Indiana received \$12,707,000 for the program in fiscal year 1980, which supports 61 clinics located in 35 counties throughout the state.

When a person applies for WIC services, a determination is made for income eligibility. The income ceiling is 195% of the poverty level, which means a family of four could earn up to \$13,900.

The final screening for eligibility is based on nutritional risk, which is assessed by a physician, a nutritionist or a registered nurse. Hemoglobin or hemotocrit, height,

WIC: A Food Program Intended to Improve Nutritional Status

weight, and a history of nutrition-related health conditions provide the clinical data for the nutritional assessment.

Certification of eligibility lasts for six months for children and postpartum women, or the duration of a woman's pregnancy. At the end of that time, after the participant's income and nutritional status have been reassessed, the person is certified for another period or removed from the program to allow a higher-risk applicant to participate.

Once a person is enrolled, he or she receives vouchers for supplemental foods each month, which are specifically selected for the client by a WIC nutritionist or registered nurse. Indiana offers 135 different food "packages" that are combinations of the basic WIC foods: milk, cheese, eggs, fruit juice, iron-fortified cereals and iron-fortified formula. The WIC food vouchers are redeemable at participating grocery stores and pharmacies.

An essential element of the program is the provision of nutrition information and individualized nutrition counseling by a nutritionist or nurse. Pregnant women are counseled on a diet suitable for pregnancy, and a weight record is kept to monitor weight gain. A 24 to 30 pound weight gain is encouraged. Since one of five pregnant WIC clients are less than 17 years of age, special efforts are directed to help these young girls who are prone to poor eating habits and a fanatic interest in slenderness. Choices of feeding the newborn are

discussed with the prospective mother, giving encouragement and support to breast-feeding. One of four Indiana WIC mothers breast-feed their babies. Mothers who do not breast-feed are encouraged to continue using iron-fortified formula even after the baby has been weaned from the bottle and to delay introduction of solid foods until the baby is at least four months old.

Another important aspect of the program is the integration of WIC food and nutrition counseling into the client's routine health care. Many participants have private physicians and continue as patients of their physicians while enrolled in WIC. WIC participants who do not have a source of care are able to use the clinic services available through the WIC agency; if the WIC agency does not provide health services, referrals are made to other sources of care in the community.

The question often is raised whether WIC is successful in improving the health status of the persons who participate. According to evaluation studies, the answer is a definitive "yes." The following positive efforts have been noted: greater weight gain during pregnancy, higher birth weight of infants born to WIC mothers, accelerated growth of WIC children, and a decrease in the rate of anemia.

The WIC Program has at its core the recognition that, to optimize the health, growth and development of an individual from conception through childhood, nutritional needs must be adequately met. At present, the Indiana WIC Program is providing a nutritional headstart to 20% of the potential citizenry in need of such a program in our state. With adequate funding, it is our goal to make WIC services available to every Indiana woman and child who could benefit from better eating habits so as to be healthy and more productive members of our state.

Getting Back to the Basics

Gleanings from Retirement

ALEXANDER W. CAVINS, M.D.
Terre Haute

I WAS GRADUATED in the Class of 1917 from Shortridge High School, Indianapolis, when it was on Pennsylvania Street between North and Michigan Streets. In my class were 321 students and those with good grades could enter practically any college in the country without taking a college entrance examination. Many of the teachers were of college faculty caliber—as I learned later on from college experience.

The high school graduates of that generation could go straight into newspaper work, business positions, etc., not requiring professional training because they could all cipher and write passable English. The same intellectual equipment made it possible to absorb what college had to offer, and later on, professional school. Thus, I was equipped to enjoy life itself and also to appreciate my colleagues and confreres, as the earth turned.

It seems a shame that having progressed so much farther now in technology in all branches of knowledge we should be having trouble with our basis of education. Apparently, we have allowed our numerous specialties in knowledge of Nature—science, in other words—to obscure the path we have trod which must be used by our successors.

There is an old saying about not being able to see the forest for the trees. We have become unable to see the *roots* of the forest for the underbrush, though we admire the noble crowns of the big trees. The latter are our top scientists and universities; the underbrush is the maze of dubious pet theories concerning ways to “improve” the acquisition of basics needed for growth of the young mind to insure a solid foundation for adult advancement.

An ancient once wrote: “Repetitio mater studiorum est.” While we grant (and even declare) that repetition is really the exact opposite of research and therefore of progress, it is still the solid basis of learning the use of “readin’, ‘ritin’ and ‘rithmetic”—the hand tools of all mental development in a civilized world.

A word to the wise is sufficient, but how many words will be required for those who are not as “wise” as they think they are?

The author, a retired gynecologist, is the senior consulting editor of THE JOURNAL.

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ISMA-A, AMA/ERF Committee

In 1980-81 medical families and their friends across our nation contributed a total of \$1,692,346.03 to the AMA's Education and Research Foundation (AMA/ERF). Mrs. Clair Cavanaugh, AMA-A chairman for AMA/ERF, announced that this amount represented an increase of \$89,000 over last year's total contributions. The money will provide unrestricted funds to be used at the discretion of the deans of our country's 124 medical schools during the 1981-82 academic year.

Indiana received \$55,556.83 of the \$1.6 million available to the AMA/ERF. For the second consecutive year, Indiana received the largest grant awarded a single medical school in the United States. Steven Beering, M.D., dean of the Indiana University School of Medicine, has used these funds to offer financial aid to AMA Research Scholars and to AMA Research Fellows.

The following students were designated as AMA Research Scholars, each receiving \$400 per month during his/her off-quarter. Each of

these students is enrolled as a sophomore in the regular medical curriculum. Fourteen of them are pursuing their studies in Indianapolis while five are working in Bloomington and Terre Haute. They are: Cheryl Armstrong, Greensburg; Duncan Brindley, James Brink, Timothy Hupfer, Gregory Plautz, Larry Stevens, Scott Westfall, Anne Marie DeSanto and Timothy Eisenhut, all of Indianapolis; Samuel Harmon, Evansville; Donald Miller, Elkhart; Connie Owens, Thorntown; Steven Waltz, Rockville; Mary Welsh, Richmond; Karen Brugge, Gregory Georgiadis and Alice Wood, all of Bloomington; Joseph Seipel, Lanesville; and Clifford Crawford, Terre Haute.

The following individuals are pursuing graduate degrees in addition to the M.D. and have been designated AMA Research Fellows for the 1981-82 academic year. Each will receive \$6,000 during that time. They are: Gary M. Gaddis, Kokomo; Thomas L. Ortel, Greenfield; J. Marc Overhage and Daniel S. Smith, Indianapolis; and James W. Van Huissee, Jasper.

County auxiliaries are encouraged to have at least one fund-raising

project for the benefit of AMA/ERF during the year. Christmas sharing cards, memorials, raffles, Christmas card sales and auctions were successfully employed last year and will be on-going projects during the coming year.

In addition, county auxiliaries support AMA/ERF projects of the ISMA-A. In April, at the annual meeting of the House of Delegates, we will feature a "City Market" stocked with items created and donated by talented Indiana auxiliaries. All proceeds of the sale of these items will be channeled to the AMA/ERF fund.

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BOOK REVIEWS

Current Surgical Diagnosis and Treatment

J. E. Dunphy, L. W. Way. Copyright 1981, Lange Medical Publications, Los Altos, Calif. Paperback, 1,138 pages with many illustrations, \$25.

This is another one of the Lange publications which come out in an updated edition each year. It is not a year book in which the important contributions to the surgical literature of the previous year are summarized. Instead it is a comprehensive text book of surgery comparable to such texts as those of Sabiston and Jonathan Rhoads but in a more compact format. The procedures to be undertaken in every situation calling for surgical interference are outlined but there are no extensive descriptions of techniques. The book is divided into 51 chapters, each written by experts in the various fields covered. J. Engelebert Dunphy, M.D., Professor of Surgery, Emeritus, University of California School of Medicine, chief editor, is well known in surgical circles. The chapters on Approach to the Surgical Patient, Peritoneal Cavity, and Appendix were written by him. His co-editor, Lawrence W. Way, M.D., Professor of Surgery, University of California, wrote the parts dealing with the liver and biliary tract and collaborated with others in the authorship of three other chapters. In all, 80 different authors, chiefly but not all, from the University of California collaborated in the volume.

I was particularly interested in the section on Special Medical Problems in Surgical Patients. In it Peter Forsham outlines the steps to be taken in patients suffering from adrenal insufficiency, pheochromocytosis, diabetes insipidus and mellitus and obesity; the special wound healing and nutritional problems in patients with endocrine disturbances and the like. Maurice Sokolow reviews cardiac conditions masquerading as surgical illness, pre-operative evaluation including ECG's, the specific problems in coronary artery and valvular heart disease, hypertension, arrhythmias, congestive failure, etc. Also discussed by various internists and surgeons in this section are the particular hazards in respiratory, renal and hematologic diseases, the problems of coagulation and anti-coagulation and the handling of whole blood and blood components in transfusions. The medical problems posed by surgical conditions on pregnant women is dealt with in some detail.

Although the material in this book is presented in a fairly compact style, it is complete enough for reliable reference in nearly every surgical problem. I think all physicians in active practice, regardless of specialty, will find this a very useful book.

PAUL S. RHOADS, M.D.
Richmond
Internal Medicine

What to Do When You Think You Can't Have a Baby

Karol White. Copyright 1981, Doubleday and Company, Inc., Garden City, N.Y. 215 pages, \$11.95.

Inside the dust-jacket is the statement: "Karol White is a journalist whose health-related articles have appeared in *New York* magazine, *Science Digest*, and *Cosmopolitan*. A New Yorker living in St. Louis, she is also the author of several business-related books."

This blurb is the clue to the feelings of a professional man while reading a book of this kind. One expects to put up with exaggerations and some floridity of style in newspapers and popular magazines, but in a book, especially on such a subject as sterility, journalistic techniques are apt to sound a jarring note. But this literary genre has become so commonplace that the chances are the readers for whom it is intended will not notice the tendency to glamorize while explaining and to wax a bit gushing over her favorite researchers.

Nevertheless, the book should be understandable to most readers and contains much real information ordinarily unavailable to the average childless couple. Unfortunately, the author goes overboard at times in her cynicism regarding the medical profession in general, since she brands many with an iron which should be reserved for a few.

Let me be accused of unfair generalization, a sample of what I call exaggeration appears on page 67 under "The Patient's Right to Know": . . . "She may have consulted scores of other doctors." Now I maintain that "a score" means "twenty" and "scores" would mean forty, or more, an obvious exaggeration. An example of the tendency to effusive enthusiasm occurs on page 60: "The transplant was made possible through the sophisticated microsurgical magic of Dr. Silber." Magic is a word not often encountered in medical science. Expertise, yes; magic, no.

There is downright error in the illustration on page 39, where the vas deferens is shown ending at the surface of the skin in the sulcus between penis and scrotum, and the posterior urethra is completely anterior to the prostate. The fact that the illustrations are essentially diagrammatic does not excuse this. There is also a glossary of terms which could be considerably improved by correcting a number of inexact definitions. If we are to teach, let us be exact.

Let me suggest, as I have before in a similar case, that here is a book of some value for the lay reader, yet it would be well for the physician to *read it himself* before "prescribing" it for any particular patient.

Some couples could be helped by its "counseling" while others might become unduly alarmed because of their inability to distinguish the wheat from the chaff.

A. W. CAVINS, M.D.
Terre Haute
Gynecology

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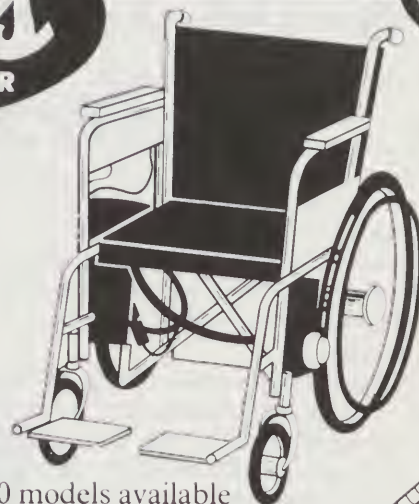
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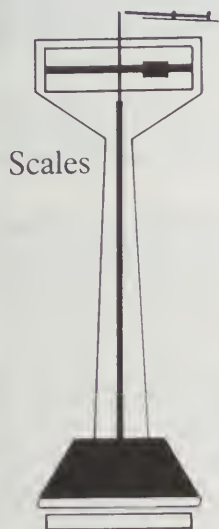


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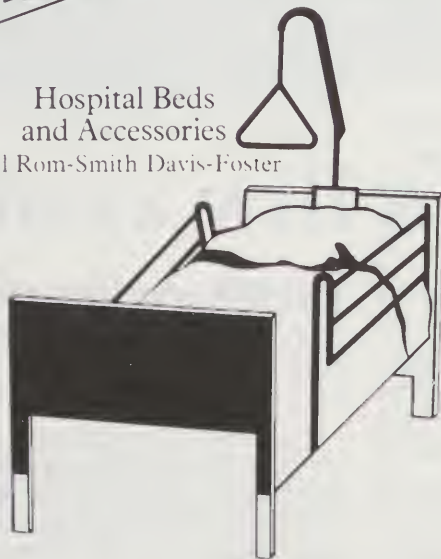


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BOOK REVIEWS

Guidelines for Grade Exercise Testing and Exercise Prescription

Published under direction of the American College of Sports Medicine. Copyright 1980, Lea & Febiger, Philadelphia. Paperback, 151 pages.

Any experienced physician knows that what he has to tell his patients about life style in regard to exercise, rest, sleeping hours, diet, habits such as alcohol and cigarette consumption, and the like is more important than medications he may prescribe. No one will dispute the value of the exercise prescription, particularly in middle aged or elderly patients who have led a sedentary life and are moved to take up exercise in a consistent manner.

In giving advice on exercise, good clinical judgment based on a careful history and physical examination and a consideration of the patient's personality and past performance is the most essential requisite. Exercise testing outlined in this manual will be of further assistance in dealing with compulsive patients who ask for very specific directions and others whom the physician considers borderline risks.

The many conditions which make out-of-the-hospital exercise testing hazardous should be obvious to

experienced clinicians. However, review of the long list presented in tabular form in this manual might be worthwhile.

The unit of energy requirement determined on a treadmill is designated as a MET. Knowing how many of these are required for a given activity is very useful to the exercise expert. This reviewer, who is not very good at technical calculations, would have to take the experts' judgment on what relevance the MET score has for any given patient.

The ECG monitoring before, during and after the test to me, at least, is more informative. This is stated as a confession and is not to be construed in any way as downgrading the value of all elements of the testing.

Review of the various drugs that may invalidate test results, the armamentarium of drugs that should be on hand for emergencies when testing is undertaken and the necessity for a physician to be on hand during the tests give one the same kind of jitters he may experience in reading the fine print accompanying packaged drugs. But exercise is more important to maintaining health than drugs. The more we can learn of how to use it and prescribe it intelligently the better our patients will be served. Most physicians who take care of patients should find this volume helpful.

PAUL S. RHOADS, M.D.
Richmond
Internal Medicine

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Serial Dissections of the Human Brain

Carlton G. Smith, M.D., Ph.D. Copyright 1981, Urban and Schwarzenberg, Baltimore-Munich. 93 pages, \$14.50.

This book demonstrates serial dissections of the cerebral hemispheres and cerebellum, and illustrates the major pathways of the brainstem.

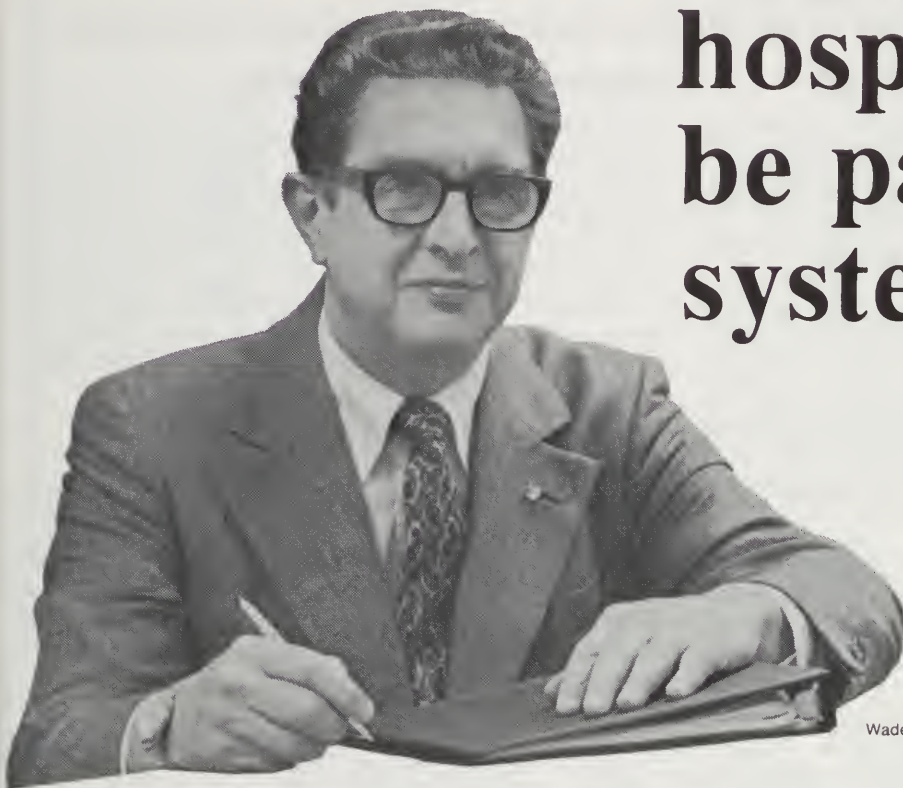
The format is essentially illustrative, consisting of numerous excellent photographs and clearly labeled line drawings.

From the clinician's point of view the book is superb. It is concerned with the practical aspects of neuroanatomy, which are generously illustrated with large drawings and photographs, the entire being contained within a total of 93 easy-to-read and understand pages.

The sequence of the dissections and the logical presentation of the text make this an ideal book for the student.

CHARLES A. BONSETT, M.D.
Indianapolis
Neurology

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* Twenty-nine percent of the nation's general community hospitals were in centrally managed multi-hospital systems in 1980. And this number is multiplying rapidly. (April 1981 issue, *Modern Healthcare*)

NEWS NOTES

Doctors Win Third Place in Poll

God and President Reagan ranked ahead of the medical profession in a recent Iowa poll designed to measure public confidence in governmental, business, religious and social institutions. A similar poll in 1977 put doctors fourth behind God, the state highway patrol and banks, according to *Medical Economics*.

Blues Grant Contract to Koala Center

KOALA
CENTER



Blue Cross and Blue Shield of Indiana has presented the Koala Center alcoholism treatment center, Lebanon, Ind., with a certificate and plaque symbolizing a full participating contract.

Herbert P. Dixon, vice-president, Provider Relations Division, Indianapolis, gave the certificate and plaque to Harold J. Thompson, Robert Edwards and John Olenick, Koala Center owners. Dixon said, "This is the first such contract between the corporations and an alcoholism treatment center outside of Marion County."

Koala Center, which marked its fourth year of operation Oct. 10, has a 30-day inpatient program. The 64-bed facility is named for the Australian koala bear which does not drink—even water—but eats only eucalyptus leaves. Koala literally means "no drink" in the Australian aboriginal language.

(The center's symbolic trademark, shown here, recently was granted a Certificate of Registration by the U.S. Patent Office.)

In addition to detoxifying the patient, Koala Center offers group therapy, family counseling, introduction to Alcoholics Anonymous, recreational therapy, psychological testing, nutrition awareness, spiritual counseling and employer involvement.

New Television Health Series

A new health program on national TV, sponsored by Hoffmann-La Roche, will appear on some 70 stations. "The Health Field" will feature Dr. Frank Field and his daughter Pamela, both of whom are science reporters on WNBC-TV in New York.

The Fields will conduct discussions about and describe developments which are announced at major medical meetings. In Indiana the program will appear on Channel 55 in Fort Wayne at 7:30 a.m. on Sundays, and on Channel 40 in Indianapolis at 5:30 a.m. Monday to Friday. From Chicago the Channel is 44 at 4:30 p.m. or 6:30 a.m., Monday to Friday. From Louisville the Channel is 41 at 12:30 p.m. Monday to Friday. In South Bend turn to Channel 16 at 6:30 a.m. Monday to Friday. In Cincinnati the Channel is 12 at 5:30 a.m. Monday to Friday. And, as usual, consult your local listings.

Fellowships in Hemophilia

Applications are now being received by the National Hemophilia Foundation for two Judith Graham Pool postgraduate fellowships in hemophilia, for the year beginning July 1, 1982. Grants of up to \$15,000 per year will be awarded for either clinical or basic research.

Applications must be received not later than Dec. 15. Decisions are anticipated by Feb. 15. Application forms and instructions may be obtained by writing to the Foundation at 19 W. 34th St., Room 1204, New York, N.Y. 10001.

Radiology Film Available

A public education motion picture, "Images of Life," has been released by the American College of Radiology. It is available on a free-loan basis for use by service and civic clubs, health care management and employees, medical institutions, television, students interested in medical-science careers, and general public audiences.

It is 28 minutes long and is available as 16mm film or 3/4-inch videotape cassettes. Write to DuPont Company, Motion Picture Distribution Service, Wilmington, Delaware 19898.

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The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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NEWS NOTES

Here and There . . .

. . . **Dr. George W. Wagoner**, a Delphi family physician, has announced that he will retire from active practice after 45 years.

. . . **Dr. Leo M. Bonaventura** of Indianapolis discussed "The Basic Evaluation of the Couple with Impaired Fertility" during a September fertility conference at Memorial Hospital in South Bend.

. . . **Dr. Ronald E. Aigotti**, a South Bend oncologist, discussed the relationship of anatomy and physiology to cancer during a September meeting of "I Can Cope" at Memorial Hospital in South Bend.

. . . **Dr. Ray C. Smith, Jr.** of Indianapolis has been elected president of the Indiana Division, American Cancer Society; **Dr. Richard G. Huber** of Bedford was elected vice-president.

. . . **Dr. Peter E. Gutierrez** of Crown Point has been appointed to the advisory council of BetaMED Pharmaceuticals, Inc.

. . . **Dr. Eugene M. Helveston**, director of pediatric ophthalmology at Indiana University School of Medicine, has been named the school's Coleman Professor and chairman of the Department of Ophthalmology; he succeeds **Dr. J. Terry Ernest**.

. . . **Dr. Tae G. Kiehm** of Mishawaka discussed the "Home Glucose Monitor System" during a September meeting of the Diabetes Association in South Bend.

. . . **Dr. P. Justin Keenan**, a South Bend neurologist, addressed a September meeting of the St. Joseph County Stroke Club in South Bend. **Dr. David L. Clayton** of South Bend is the club's medical advisor.

. . . **Dr. Steven C. Beering**, **Dr. Ronald Blankenbaker** and **Dr. A. Alan Fischer**, all of Indianapolis, have been appointed to two-year terms on the board of the Indiana Medical and Nursing Distribution Loan Fund.

. . . **Dr. Jane M. Imscher** of Fort Wayne and **Dr. Robert M. Seibel** of Nashville have been appointed as medical representatives to the Indiana Health Facilities Council.

. . . **Dr. Max Feldman**, a South Bend general practitioner for about 40 years, has retired from active practice.

. . . **Dr. Gerald M. DeWester** of Greenwood has been elected director of the Seventh District Chapter of the Indiana Association of Family Physicians; **Dr. John M. Records** of Franklin was elected vice-president.

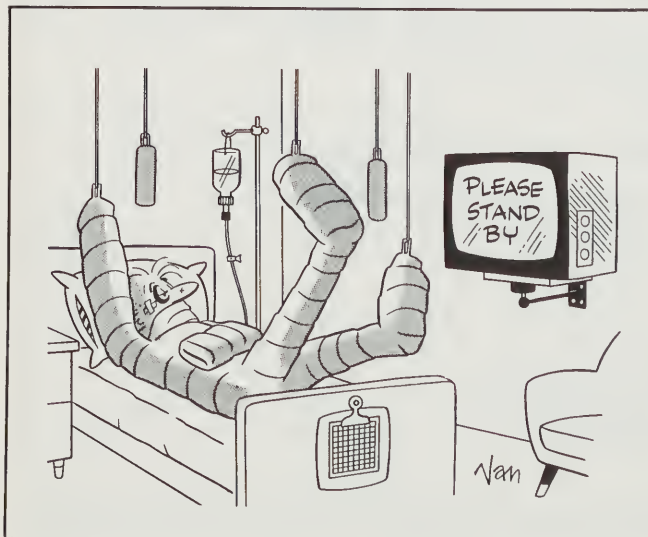
. . . **Dr. Edward Ross** of Indianapolis has been elected to Fellowship in the American College of Cardiology.

. . . **Dr. Arnold W. Kunkler** of Terre Haute has been elected president of the Indiana Chapter, American College of Surgeons.

. . . **Dr. Aileen G. Stiller** of LaPorte helped conduct a wellness seminar on "Health Problems, Prevention for Women" at LaPorte Hospital in September.

. . . **Dr. James H. Gosman** of Indianapolis has been reappointed to a three-year term on the board of advisors, Indiana University-Purdue University at Indianapolis.

. . . **Dr. J. Michael Hoog** of Fort Wayne discussed "Urinary Tract Diseases and the Diabetic" during a September meeting of the American Diabetes Association in Warsaw.



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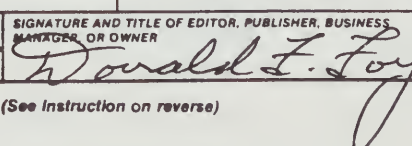
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COMMERCIAL ANNOUNCEMENTS

EMERGENCY PHYSICIAN: Immediate opening for a career-oriented emergency department physician to join an existing group of physicians servicing two emergency departments with 42,000 visits annually. EMS residency graduate or experienced physician with board credential eligibility preferred. Outstanding income derived from a fee-for-service contract. St. Mary's, the major institution, is a 484-bed general, voluntary, not-for-profit teaching medical center affiliated with the Indiana University Medical Center and the University of Evansville. Management and staff are active in and committed to teaching and supervising pre-hospital care on basic and paramedic levels. Send a resume or CV to O. Franklin Beumer, AEP, Personnel Director, St. Mary's Medical Center, Inc., 3700 Washington Avenue, Evansville, Ind. 47750. (812) 479-4384. An Equal Opportunity Employer M/F/H.

EMERGENCY MEDICINE position available: Emergency Physician to join an established group with excellent salary, flexible schedule, malpractice insurance. Contact B. D. Wagoner, M.D., Emergency Dept., Reid Hospital, Richmond, Ind. 47374. Tel: (317) 966-9527.

FOR LEASE: Office adjacent to hospital in growing medical community. Additions to 350-bed hospital and mental health unit now under construction. Ready for occupancy early in 1982. Address inquiries to N. M. Welch, M.D., R.R. 3, Box 17, Vincennes, Ind. 47591.

OFFICE SPACE AVAILABLE: Winona Memorial Hospital's Clinic Building has prime office space now available at 3202 N. Meridian St., Indianapolis. 1560 sq. ft. available, including four offices each with their own exam room. A receptionist and waiting area of 375 sq. ft. also available. Easy access to all Winona outpatient services. For more information, contact Mr. E. Randall Wright at 317-927-2223.

SECOND ANNUAL Study/Ski Seminar for Indiana physicians and lawyers—Vail, Colorado, January 23-30, 1982. Registration for lodge rooms closes November 20th. For details and reservations, contact Rex Killian, (317) 926-2326, SIMBA, 3921 N. Meridian St., Suite 200, Indianapolis, Ind. 46208.

EMERGENCY MEDICINE position available: Emergency Physician to join professional group practicing in superior emergency department in Hammond, Indiana. Contact Dr. Robert F. Guthrie at (312) 474-0014 or Emergency Care, S.C. at (312) 327-0777.

BOARD CERTIFIED INTERNIST, practicing two years, desires relocation in Indiana. Seeks sala, group, partnership or buy established practice. Available July 1982. C. S. Kadakia, M.D., Covered Bridge Terr. #D-2, Philippi, W. Va. 26416.

EMERGENCY MEDICAL POSITIONS—Emergency Consultants, Inc. has Emergency Medicine opportunities available in resort and metropolitan locations. 60 hospitals in 12 states are currently serviced. Benefits include competitive salaries, paid malpractice insurance, and flexible scheduling. For further information, contact Emergency Consultants, Inc., 2240 South Airport Road, Suite 121, Traverse City, Mich. 49684; 1-800-253-1795 or in Michigan 1-800-632-3496.

GET TAX DEDUCTIONS from Real Estate investments. Retiring physician advising best way to keep earnings is through Real Estate investments. Excellent opportunity to purchase from owner. Call 317-357-4129.

WANTED TO BUY: Gastroenterologist interested in buying Internal Medicine Practice in an area with potential to practice Gastroenterology. Call (502) 895-9006 or write A. B. Reddy, 640 ZORN Ave., Louisville, Ky. 40206.

REAL ESTATE For Sale: Wonderful opportunity for a doctor to own his office. By widow. Ground floor, fully equipped physician's office. Ample parking. White aluminum siding, aluminum storm windows and screens. Fully insulated. New gas furnace. Valuable real estate and location. On contract, reasonable down payment, 10% interest. Call 219-295-8880 or 219-294-3162.

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WHAT'S NEW?

CONTINUED FROM PAGE 696

TECHNICAL RESOURCES, INC. announces the new SphygmoStat™ Electronic Stethoscope (Model S-50). The power supply and controls are incorporated in stethoscope head, and the instrument appears to be a conventional instrument. It extends the user's normal hearing range by several orders of magnitude. It weighs only 4.5 ounces. Controls include On/Off, continuously adjusted volume and Hi-Low Tone Filter.

"HOSPITAL TRUSTEE Development Program," Volume 2, has been published by the American Hospital Association. The book is intended as an orientation program for new trustees or as a CME program for experienced trustees and others. It is sold by the AHA, P.O. Box 96003, Chicago, 60693. The price is \$16.25 for nonmembers. Volume 1 is available at \$11 for AHA members and \$13.75 for nonmembers.

THE KELLOGG COMPANY, in response to consumer interest in whole grain foods and in cereals devoid of added sugar, announces a new line of four cereals under the general name of NUTRI.GRAIN™. The four varieties are barley, corn, rye and wheat, prepared in flaked form and fortified by 25% of the RDA in nine vitamins and zinc.

THE MEAD JOHNSON Nutritional Division has introduced a Critical Care Nutritionals product line. Three new products, Sustacal HC, Isocal HCN, and Criticare HN, are formulated to meet specific requirements of patients suffering from severe systemic illness, major burns, major surgery, multiple trauma or impaired digestion and absorption. Each of the products possesses characteristics which will make it suitable for specific clinical conditions.

AUDIO-FORUM now has a basic Spanish language course developed for health professionals. It is in audio-cassette form with 19 units and vocabulary pronunciation drills on 12 cassettes. The course presupposes no knowledge of Spanish by the learner. It is intended for use by physicians, nurses, technicians, physical therapists and medical social workers, as well as schools, hospitals and medical centers.

DELACORTE PRESS is publishing *LONGEVITY Fulfilling our Biological Potential*, a book by Kenneth Pelletier, Ph.D., which outlines specific measures to lengthen the lifespan by application of holistic health practices. He advocates combining a stable psychological attitude, good nutrition, weight control, moderate consumption of alcohol, abstention from cigarettes, and adequate exercise and sleep. 448 pages, \$15.95.

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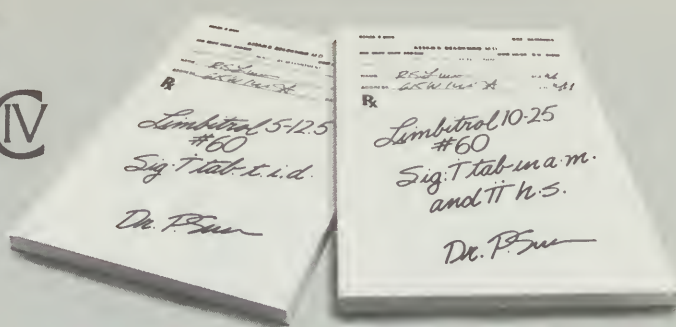
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Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)



In anxious depression, SPECIFIC FOR THE NONPSYCHOTIC PATIENT

Fits the picture of anxiety/depression correlation

Most patients with a mood disorder have a mixture of anxiety and depression. One clinician¹ found a correlation of 0.7 in anxiety and depression scores; another² has estimated that 7 of 10 nonpsychotic depressed patients are also anxious. For the dual symptomatology of anxious depression, Limbitrol provides dual medication.

More appropriate for the nonpsychotic depressed and anxious patient

Limbitrol contains both amitriptyline, specific for symptoms of depression, and a benzodiazepine, specific for the symptoms of anxiety. Thus it is a better choice than other dual agents for anxious depression that contain a phenothiazine, a class of antipsychotic drugs less specific for anxiety and now generally avoided in nonpsychotic patients.^{2,3}

Avoids the risk of tardive dyskinesia carried by the phenothiazine combinations

The causal relationship between the phenothiazines and other extrapyramidal side effects, including tardive dyskinesia, is well established. In contrast, the reported incidence of these adverse reactions with Limbitrol or either of its components is rare.

References: 1. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970. 2. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. 3. Baldessarini RJ, Torsy D: Tardive dyskinesia, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascia A, Kilham KF. New York, Raven Press, 1978, p. 999.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.



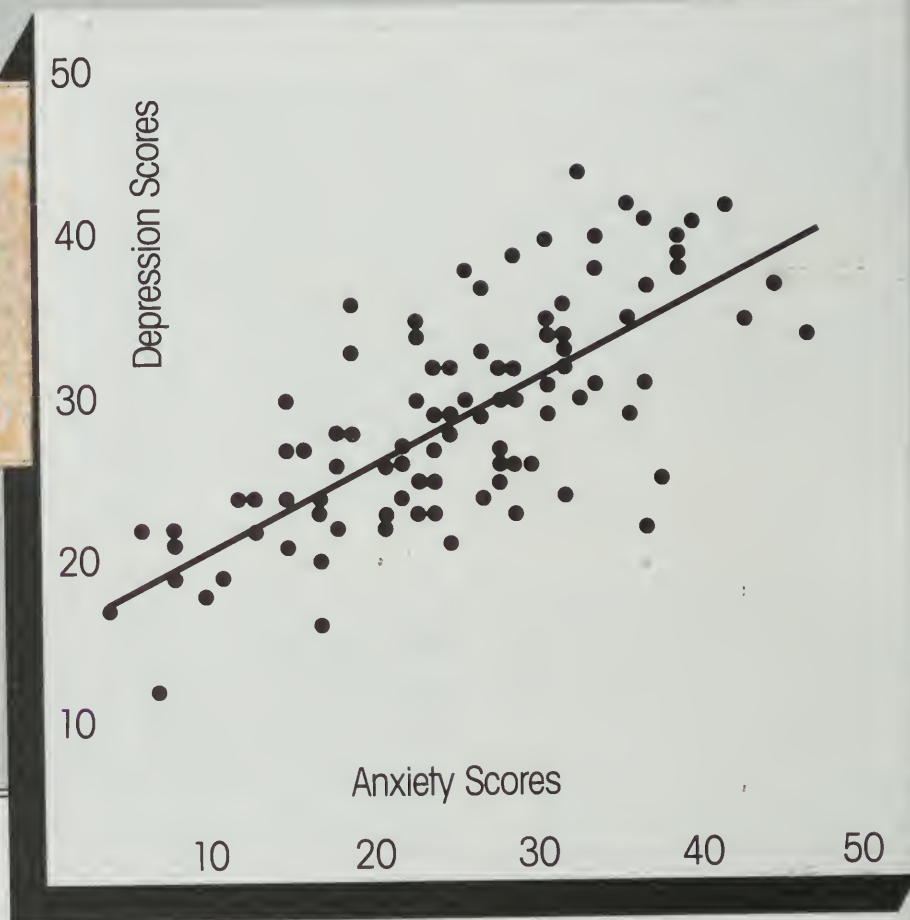
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MORE DEPRESSION MEANS MORE ANXIETY...



The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scale in 100 nonpsychotic psychiatric patients. The Coefficient of Correlation is 0.7. As depression increased, so did the anxiety levels.

—Adapted from Claghorn J¹



A key reason why
**MORE PHYSICIANS ARE CHOOSING
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Tablets 5-12.5 each containing 5 mg clordiazepoxide and 12.5 mg omipriptyline (as the hydrochloride salt)

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1. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970

Please see summary of product information on inside cover

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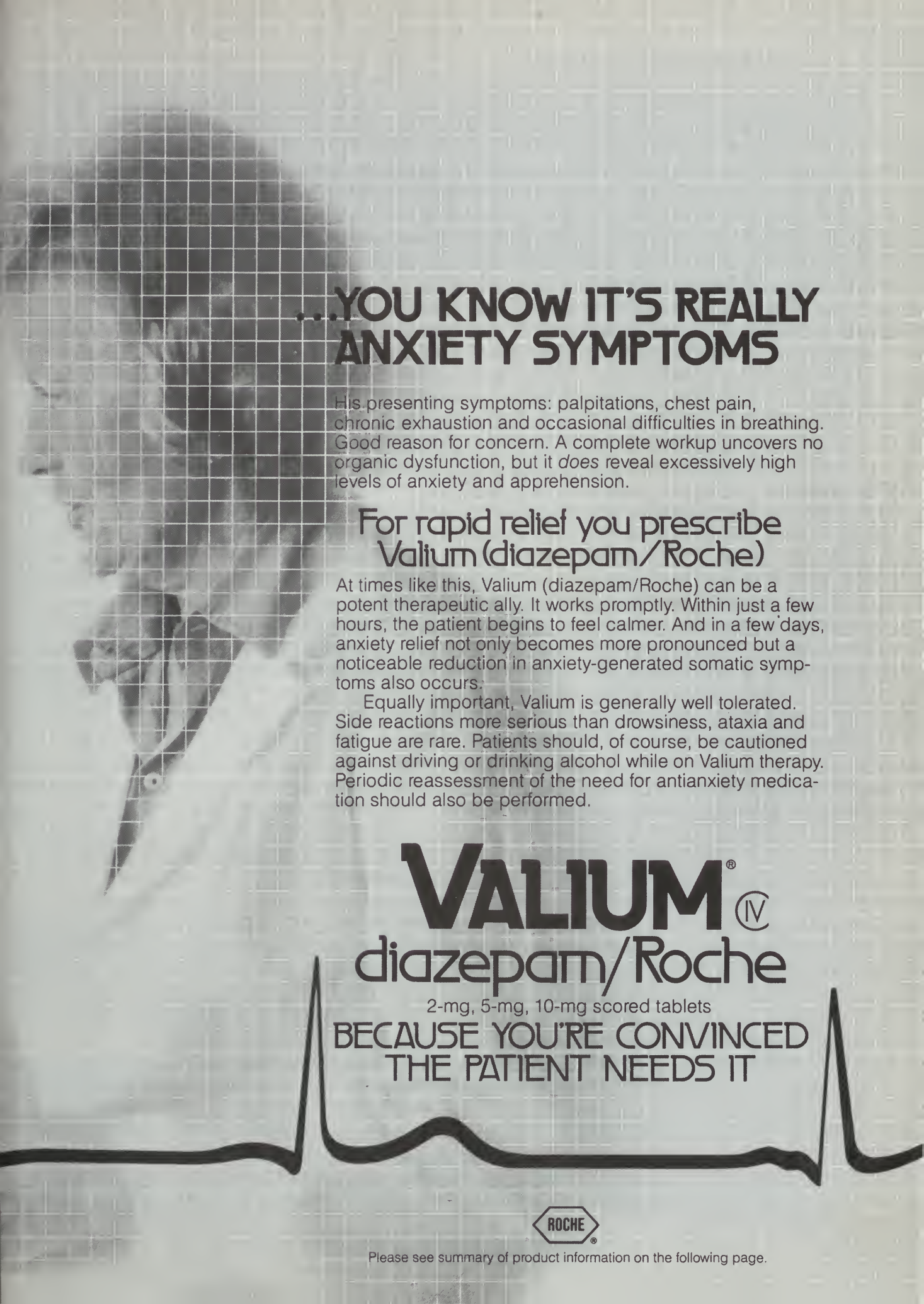


ISMA'S ANNUAL CONVENTION

Wrap-up begins on page 816

**THE PATIENT THINKS
HE HAS HEART TROUBLE...**





...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

For rapid relief you prescribe Valium (diazepam/Roche)

At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM[®] ^{IV}

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT



Please see summary of product information on the following page.

VALIUM®(diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy). The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. **Adults:** Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours; then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. **Geriatric or debilitated patients:** 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500;* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

*Supplied by Roche Products Inc., Manati, Puerto Rico 00701

†Supplied by Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, New Jersey 07110



ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

WHAT'S NEW?

SCHERING has obtained FDA approval for marketing "Paxipam" (halazepam), a minor tranquilizer for treatment of anxiety. It is a derivative of the benzodiazepene class of drugs and is a controlled substance in Schedule IV. As with most tranquilizers, it does not mix with alcohol and patients also should be cautioned in regard to drowsiness.

MERCK announces FDA approval to market "Moduretic" and "Midamor", two new potassium-conserving diuretic prescription products. Moduretic is a combination of amiloride with hydrochlorothiazide. Midamor is a single-entity form of amiloride to be used with thiazide and other potent diuretics. Both products offer a one-tablet, once-daily dosage regimen.

LITTON INDUSTRIES is announcing a new generation of microprocessor-based patient monitoring systems for hospital acute care. Medivision™ contains a minicomputer (self-contained) and functions for bedside or central station observation, or from any location in the hospital. Patient image is activated on all monitor screens automatically when an alarm sounds or it may be called up at any time on demand.

HARLECO of EM Industries is introducing a new, rapid, high-sensitivity assay for cardiac patient management. Trademarked CardioZyme PLUS CK-MB, the new reagent achieves its sensitivity by combining the high selectivity of an improved antibody with an optimized N-acetyl-cysteine activator. Assays may be run in less than 20 minutes.

THIEME-STRATTON announces a new book which details the many implications of DES exposure. *Developmental Effects of Diethylstilbestrol (DES) in Pregnancy* is authored by Arthur L. Herbst, M.D., and Howard A. Bern, Ph.D. Clinical and medico-legal developments make this reference a valuable aid for clinicians. 203 pages, \$29.

Diagnostic Imperatives, a new book outlining diagnostic tests, by Samuel Proger, M.D., and Michael Barza, M.D., has been released by Thieme-Stratton. It addresses, in particular, those diseases that would result in death or disability if not treated but may be reversed and/or cured if the diagnosis is made promptly and treatment is applied. 271 pages, \$17.95.

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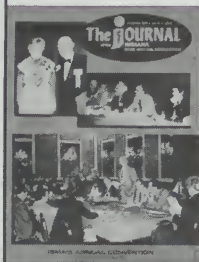
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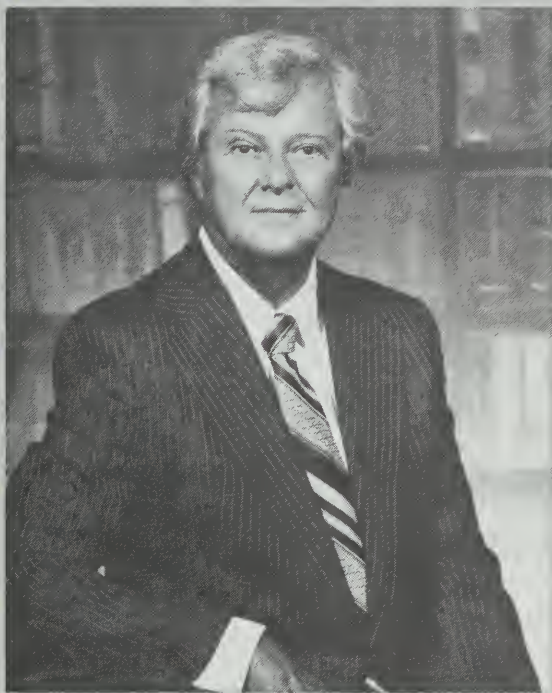
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ABOUT THE COVER

Elsie Reid and Dr. Robert Brown (top left photo) received special recognition during this year's convention. Photo coverage of the convention begins on Page 816. Dr. Paul Siebenmorgen (standing, bottom photo) was elected chairman of the Board of Trustees; other election results begin on Page 825. Resolutions, considered by various reference committees such as the one in the upper right photo, begin on Page 856. PHOTOS BY JOYCE WOLF





ISMA Welcomes Its 139th President

Martin J. O'Neill, Sr., M.D.

**President
Indiana State Medical Association
1981-1982**

Dr. Martin J. O'Neill, Sr. was inducted as president of ISMA Oct. 26 during the 132nd Annual Convention. He succeeded Dr. Alvin J. Haley.

Dr. O'Neill, a specialist in emergency medicine from Valparaiso, is a 1944 graduate of Indiana University School of Medicine. He served his internship and residency in internal medicine at Indianapolis City Hospital (now Wishard Memorial Hospital).

A practicing physician for more than 36 years, Dr. O'Neill has actively participated in medical affairs throughout his medical career. He is a former trustee of the Tenth Medical District and is a past president of the district and of the Porter County Medical Society. He is a past chairman of the ISMA Board of Trustees and is a former chief of staff and director of Emergency Medical Services, Porter Memorial Hospital, Valparaiso.

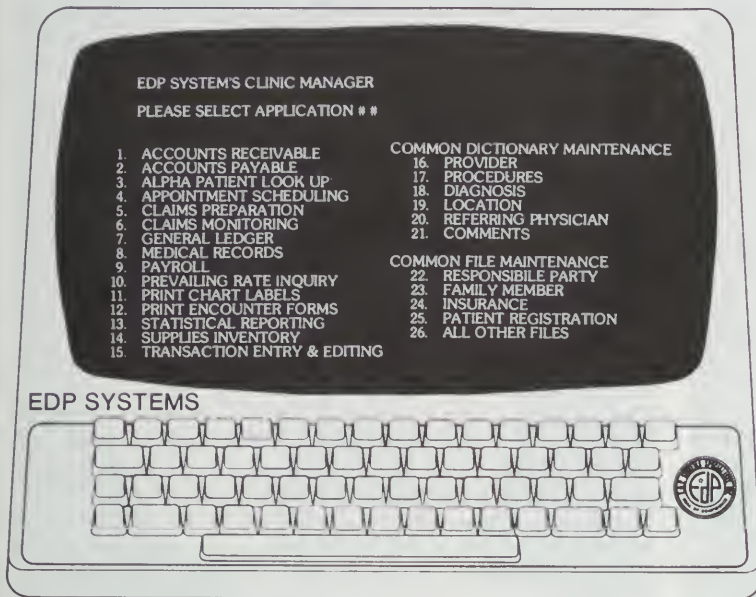
Dr. O'Neill, a native of Indianapolis, has been a member of the ISMA House of Delegates for 26 years. He has served as director and chairman of the Board of Directors, Calumet Area Foundation for Medical Care, and the Calumet Area Professional Review Organization. He also is a former director of the Valparaiso Chamber of Commerce.

He is a member of the Ad Hoc Committee on Emergency Medical Services of the Northern Indiana Health Systems Agency and is a member of the Indiana Task Force Committee on Cost Containment. He is a member of the American College of Emergency Physicians.

Until 1970, Dr. O'Neill had been in general practice for nearly 25 years in Demotte, Rensselaer and Valparaiso. From 1953 to 1955 he served on active duty with the U.S. Navy as a lieutenant commander in the Medical Corps.

Dr. O'Neill and his wife Maude Alice have five sons, three of whom also are physicians.

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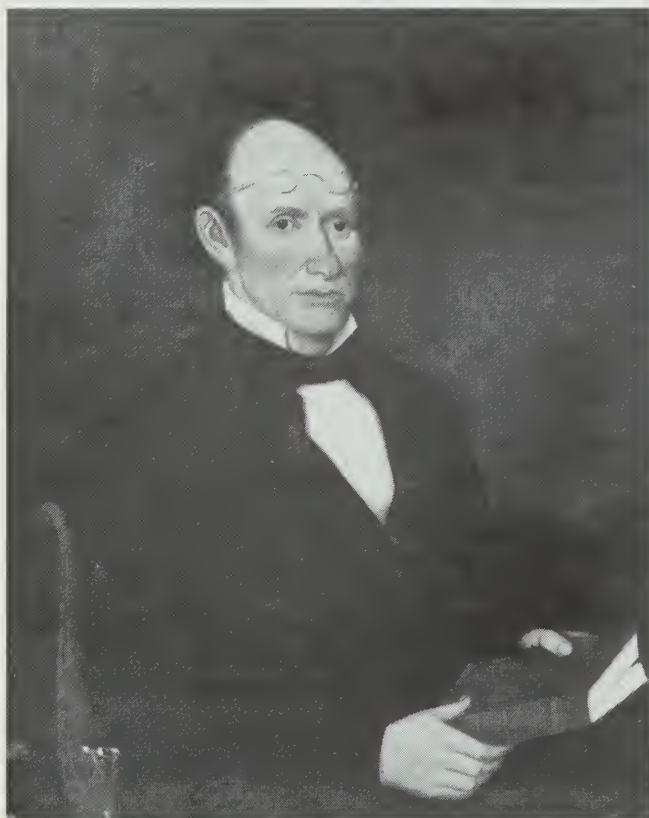
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MEDICAL MUSEUM NOTES



CHARLES A. BONSETT, M.D., Indianapolis



THIS MONTH'S page of Notes pays tribute to Dr. and Mrs. Turner Welch, Tippecanoe County pioneers; to John Jacob Hegler, pioneer Indiana artist; and to the Tippecanoe County Historical Association (and Museum).

John Jacob Hegler was born in Switzerland and came to America at the age of 19. He was employed for several years as a miller, but in due time was able to devote his full attention and talent to portrait painting. He first settled on the East Coast, later moving to Ohio, and then, in the 1840s, to Indiana. He lived and worked in Fort Wayne, Lafayette, and finally Attica, where he died in 1856.

Hegler was in Lafayette by 1849, where he advertised that, in addition to painting from life, he could "also produce good portraits from daguerreotypes, and from corpses, if called upon immediately after death."

Among the portraits he did from life are those of Dr. Turner Welch and his wife, Esther, who came to the Lafayette area originally in 1836 from Ohio. Mrs. Welch became homesick, however, so they returned to Ohio after several years, but then moved again to Tippecanoe County in 1846, where they spent the remainder of their lives. It was in this period that their portraits were done by Hegler.

Turner Welch was born in Guilford City, North Carolina, February 16, 1790. He served as a surgeon's mate in the 7th regiment of North Carolina militia during the Seminole Wars. In 1817 he attended Transylvania University (Lexington, Kentucky) for medical lectures, and then in 1819 married Esther Fallis of Warren City, Ohio, where they lived and where the doctor practiced medicine for a number of years, before moving to Indiana.

Dr. Welch died in 1875, his wife in 1877.

Hegler's portrait of Dr. Welch shows the doctor with a copy of (Benjamin) Rush's *Lectures*, the doctor's reading glasses being pushed up on his forehead for the pose.

Mrs. Welch has a similar pair of glasses in her right hand.

Very few Hegler paintings have survived to the present time. The rare examples, shown here, are located in the Tippecanoe County Historical Museum (909 South Street, Lafayette), through whose courtesy we have been given the above biographical material of Dr. and Mrs. Welch, and photographic copies of their portraits.

The material for John Jacob Hegler is from William D. Peats' book, *Pioneer Painters of Indiana* (Art Association of Indianapolis, 1954).

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FTC Advertising Generic Drugs

The Federal Trade Commission has embarked upon an advertising program in recent months that "Action in Pharmacy" newsletter says is out of the FTC's scope and represents an abuse of its powers.

The FTC is promoting the use of generic drugs to the public by a nationwide television advertising program. The newsletter said, "We do not mean to impugn the quality of generic drugs or make any particular comment about them, except to say that we think the manufacturers of generic drugs are fully capable of promoting their own product to the public."

"Action in Pharmacy" declared, "If the FTC were to suddenly start advertising a particular brand of car or style of car, the public would rise up in righteous indignation and we think justifiably so. The Federal Trade Commission is in business to prevent abuses of the marketing function of manufacturers and not promote particular types or brands of products."

Patent Term Restoration

Lewis Engman, president of the Pharmaceutical Manufacturers Association, recently emphasized in Congressional testimony that the critical factor in patent term restoration is not patent lives or research investments—it is new medicines. Because the regulatory process prevents marketing of new drugs during the several years of clinical research prior to general sales, the effective life of the patent is severely shortened and moneys for research are not recovered in quantity sufficient for discovery of still newer drugs.

The 17-year patent life is effective for renewal of research assets during only about half of the 17-year term. A bill in Congress would extend the patent life to 17 years after FDA approval has released the product for general use.

In 1964 70 chemicals were developed and qualified for clinical research. In 1976 the number was 20.

Engman emphasized that many of the newer drug entities, Tagamet for example, are so effective as to replace more expensive modalities such as surgical operations. Pharmaceuticals discovered in the future will probably duplicate this type consumer benefit more and more frequently.

One pharmaceutical firm notes that, in one five-year period, its basic research projects decreased by 10% in contrast to a 40% increase in research and development costs.

Restoration of the effective life of a patent will revolutionize the drug discovery process.

Response to GMENAC Report

The following letter was sent to Dr. Steven C. Beering, Dean of the Indiana University School of Medicine, who provided it to THE JOURNAL for publication.

I just came across the report of the Indiana Medical Education Board in the April 1981 issue of THE JOURNAL of the Indiana State Medical Association. Perhaps my responses will be useful to you.

I agree with you that one cannot simplify health manpower planning merely by taking the results of a national survey and applying them to a state by some kind of a population proportion. That point, I think, is accepted by everyone.

Some of the criticisms in your report of the GMENAC methodology may not be valid. I realize that the fine details of the methodology are not easily discernable. Therefore, I offer the following information:

- The methodology for estimating requirements for physicians' services does take into account the number of people in various age categories, including the over 65, and the expected age distribution for 1990 and the year 2000. The methodology helps plan for the added service load required by our aging population.
- The supply figures, as well as estimates of physician productivity (and, therefore, the requirements model) do take into account the rising proportion of women physicians and their lower adjusted lifetime productivity relative to male physicians.
- The supply figures do take into account restrictions on immigration of foreign physicians, and anticipate a decrease in the number of FMGs in the practice pool. No further reduction in the supply should be applied since this factor has already been taken into account.
- The number of retired physicians has already been factored into the supply calculations. The number of physicians expected to be inactive in 1990 has been estimated and applied to the model. GMENAC's supply figures include only professionally active physicians.
- A reduction in the average work week, or in physician productivity, for both men and women physicians in 1990 relative to 1978, has indeed been factored into the model individually for each of the 22 specialties.

I hope these comments will help clarify the interpretation of the GMENAC report. If I can ever be helpful to you in your efforts with the Indiana Medical Education Board, I would be most pleased to respond. Respectfully yours.

Alvin R. Tarlov, M.D.
Professor of Medicine
The University of Chicago
Pritzker School of Medicine

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Doctor-Nurse-Patient: An Eternal Triangle^o

EDGAR WOODY, JR., M.D.
Atlanta, Ga.

WE OFTEN HEAR the term "eternal triangle" bandied about. It may be applied to a variety of situations ranging from the ridiculous to the sublime.

There is one eternal triangle in the practice of hospital medicine upon which we are daily dependent. Much lip service has been given to it, but in recent years its structural integrity, by all three of its elements, has come into question more frequently than any of us would like to admit. This triangle is the very close, ongoing, dynamic relationship that must exist between doctor, patient, and nurse in the setting of a hospital-treated illness.

We have no difficulty defining the goal of our common mission. It is simply to give all ill patients the best and most effective treatment available to insure their survival. We are blessed with the most advanced technological back-up system to date. Hardly anything has been overlooked in providing us with efficient diagnostic and therapeutic facilities. The availability of disease-specific medications continues to expand at a remarkable rate.

And yet, in the midst of such plenty, there is a malfunction at the very heart of the system—and it involves the key people who make it go. If I can believe what numerous nurses have confided to me in private discussions, there is often a blatant lack of communication between doctor and

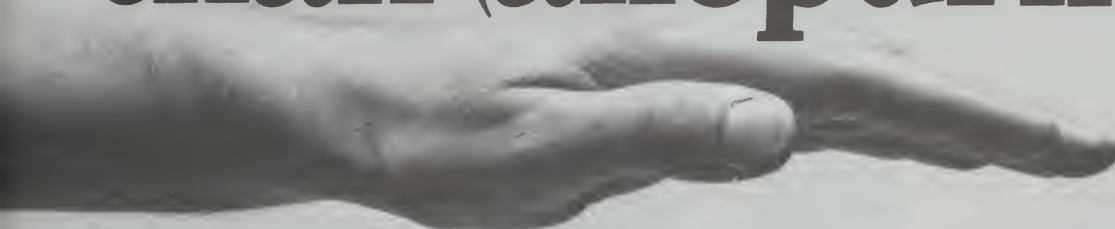
nurse regarding the ongoing management of the ill patient. All too often, a doctor will come to the hospital floor, look at a patient's chart, go in to see the patient, then come back out, make notations on the chart—and leave. In such instances the doctor loses and the nurse loses—but the ultimate and most hurting loser is the patient.

No physician in my acquaintance willfully wants to exclude a helpful nurse from the active treatment arena of an ill patient. We want and need all the help we can get from the observations of our nursing colleagues. They are capable and willing observers of the ill patient during our absence from the treatment floor, which is usually 23 out of 24 hours daily. And yet how many of us, when we arrive on the floor in the course of our busy rounds, *actively seek out* the floor nurse assigned to our patient? These key professionals are more than willing and able to share with us important, up-to-the-minute information relating to our patients that we may never see recorded on the chart. We must give them this opportunity. While receiving valuable information from them, we can share our evaluation of the patient's clinical situation. We can outline our updated plans for over-all treatment and for coping with the numerous small problems that arise from day to day. When the nurses understand what we need in the care of our patients, why we need it, and what our management plans are, they become invaluable allies within the framework of patient management.

When we as physicians remind ourselves of the facts of hospital life as we have known since we started to practice, then we will recognize that we daily need our nurses help and input as much as they need ours. Ultimately, it is the ill patient who needs and expects us as physicians and nurses to work harmoniously together in an atmosphere of mutual respect and cooperation. In this manner we can deal promptly and efficiently with illnesses that cause unwanted disruption in their lives.

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PUBLIC HEALTH NOTES

QUACKERY

Medical quackery is considered to be one of the oldest professions known to mankind. Although such charlatans may not "enjoy" as much publicity as they did in the past, their effect on the personal pocketbook remains enormous. These "practitioners" attract easy prey, as the desire for physical/emotional satisfaction or relief is a strong motivation. The quack generally proposes a complete, permanent cure for an incurable illness. Nowhere is the "quack" held in lower esteem than in the medical profession.

Quackery is a progressive "art." If the armamentarium still included only powdered mummy bones, snake oil, magic elixirs, and mysterious poultices, the consumer of today would seldom be duped. However, the current vendors are quite sophisticated. Even the terminology has changed; the practice of pretending medical skills is now called false advertising.

The successful quack is always a step ahead of the unsuspecting members of society. When electricity was new and not understood by the laity, crude shocking gadgets were promoted as cure-alls. By the time the citizenry became knowledgeable regarding electrical currents and resisted these spielers, along came the advent of radioactivity. This new phenomena provided the fakers with the opportunity to sell magic spikes and radioactive pillows which would supposedly cure anything from a hangnail to the White Plague. The victims who paid well over \$200 for the magic spike lost their money but retained their arthritis.

The next field invaded by the fraudulent promoters was zone therapy, and segments of the program are still with us. This theory is a "take-off" on acupuncture and involves placing pressure on various areas of the anatomy. These sites supposedly govern all organs and functions of the body. Gadgets which provided this pressure included weighted plastic bandages, metal instruments, and staples attached to the external ear. Promoters who only demonstrate the system (for a substantial fee) and sell no physical object are extremely difficult to prosecute by our present regulatory system.

At the present time, in several locations in Indiana, unknowing patients are being "treated" by untrained iridologists (those who study the iris and diagnose specific diseases from the markings) who sell natural food products to cure the conditions detected during a cursory examination. Many patients are being told by iridologists to discontinue their established drug regimen (sometimes including insulin) and place their trust in natural food products, a life threatening procedure.

The practice of quackery will continue to flourish as long as there are sickness, disease, and physical anomalies. The more serious or hopeless the condition, the stronger the desire becomes to return to a normal, healthy life. Thus, the phony physicians promote their nostrums to those who are afflicted

with arthritis, cancer, diabetes, epilepsy, myasthenia gravis, and other so-called incurable conditions.

The Food, Drug, and Cosmetic Act (state or federal) prohibits the distribution of drugs and devices which have not been proven to be both safe and effective in treating the indications for which they have been approved. Law also prohibits advertising a drug or device to have any effect in 36 specific diseases or conditions, unless the advertisement is disseminated only to members of the medical, dental, pharmacal, and other legally recognized professions dealing with the healing arts, or appears only in the scientific periodicals of these professions. Thus, it is quite evident that existing statutes were enacted to protect the consumer from the activities of the "doorbell doctors."

In recent years, an obstacle has appeared which is providing opposition in our war against unsafe and ineffective drugs and devices. This barrier is commonly called the "freedom of choice" movement. The proponents of this belief argue that those who are terminally ill should have the inalienable right to use anything they please, no matter how worthless or dangerous, in order to cure or mitigate their illness.

Quackery, although it is highly sophisticated and sometimes difficult to recognize, is still among us and taking its toll every day; a decision must be made. Should enthusiastic enforcement action be exercised to protect the consumers, or should the current philosophy of "free play" be allowed to gain momentum?



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Problems of the Aging Physician

A Report of the Commission on Physician Impairment

THOMAS E. LUNSFORD, M.D.
Indianapolis

DR. E. T. MAYNARD wrote at age 74: "It is romantic to want to die with your boots on, but it is a disaster if your brain has ceased to keep pace with your boots. There should be ways by which the busy physician can retard the pace in his later years, still play an important role in his profession, and yet have more leisure to enjoy other aspects of life. It is also a very pleasant prospect, but to make it a reality requires thoughtful planning.

"So, after a career of hard, stressful, and yet fascinating work, and as a result of careful planning for the future, the physician can slacken his pace, change the direction of his work and make it more suited to his age, and have time to enjoy life a little bit more. In so doing, he can continue to make a real contribution to medicine and to society, and, still with his boots on, but perhaps with boots of a different style."

Dying with our boots on, or going out in style seems to be a myth we physicians have woven around ourselves. We nurture a bit of folk lore in that early death is imminent, usually of coronary artery disease and as a result of dedication and overwork. This helps one to rationalize avoidance about either retire-

ment or old age. The evidence is, however, that the life expectancy of U.S. physicians in each decade is longer than for all U.S. males, that is, that they truly live longer than their peers.

All of us, then, potentially face aging—with all the fears and threats, yet with all the prospects of a comfortable time of life, able to do what one wishes at a pace commensurate with true leisure. Most are prepared to admit that the idea of growing older is not an attractive one. But as the venerable Maurice Chevalier said, "When I consider the alternative, I choose this one."

Unfortunately, there is a tendency to directly link aging and senility. While we all approach old age, the percentage approaching senility is very small. Senility is an organic brain syndrome associated with aging and marked by some degree of mental deterioration, accompanied by childish behavior, self-centeredness, and an inability to cope with change or new experiences.

The literature and statistics on this phenomenon among physicians are sparse. Dr. M. O. Vincent, executive director of Homewood Sanatorium in Guelth, Ontario, in a paper prepared for the Third National Conference on the Impaired Physician in Minneapolis in 1978, made an attempt to assess the in-

cidence by reviewing 32 charts of doctors admitted to that institution after their 65th birthday.

Only five had pure organic brain syndromes. None was under 70; they had retired at an average age of 71. Four others had organic brain syndromes complicated by other factors: alcohol, Korsakoff's psychosis, severe grief reaction and heavy drinking after loss of a lifetime spouse, previous hospitalization for manic-depressive illness and alcoholism, and one whose organic confusion was compounded by excess barbiturate use. The average age was 74.

Thus, only five of 32 were admitted primarily because of senility. The remainder had alcohol or drug related problems; nine suffered from affective disorders, usually depression. In this group, five had major physical disabilities such as a 25-year history of rheumatoid arthritis with continued use of steroids, osteoporosis, pathologic fractures, etc.

Duffy and Litin found three of 93 admitted to Mayo Clinic with organic disorders. The Virginia State Board of Medicine, in the medical code violations handled between 1967 and 1976, found that of 356 physicians cited, only eight (2.3%) had the diagnosis of organic brain syndrome.

In overall numbers, organic brain

The author is secretary of the ISMA Commission on Physician Impairment.

disability is a small problem, but nonetheless important. It is of no greater threat to physicians than others, but physicians present a unique problem in the frequency with which they do *NOT* retire. More often than not, the older physician finds decreasing physical stamina and mobility the problem, rather than loss of mental acuity. THE PROBLEM is the physician still in practice whose memory and judgment are mildly impaired by brain disability.

At stake are:

- The life and health of the public and subsequent trust in the medical profession;

- The reputation and welfare of the impaired physician, both of which tend to suffer by failure to discontinue or revise his medical situation; and

- The respect, welfare and autonomy of the profession, providing it fails dealing appropriately with these issues—remaining sensitive and compassionate and fair both to the aging physician and to the public.

Early recognition of the problem and appropriate action are important. The colleague who seems to be losing interest in his personal appearance and environment, overprescribes, is constantly preoccupied, forgetful (missing meeting and office dates), and has decreased concentration span, tremulousness and confusion may be showing early signs of organic brain disability. The vicissitude of continued private practice may be more than he can handle.

Because an issue of decreased competence is so painful, many physicians avoid investigating diagnostic and treatment resources that are available to them. A particular difficulty is that often multiple, highly complex decisions are required of the physician who has never previously been faced with such decisions. These often need to

be made at a time when, emotionally and physically, the physician feels least able to make these decisions.

Very frequently, as mentioned above, the physician will avoid any sort of diagnostic procedures and may not even recognize them. Senility is likely to be detected in the physician who has hospital privileges or practices in groups or whole salaried physicians. It is most likely to be undetected in the physician who practices only in his office. The problem is not his integrity or good intentions but the fact that his previous good judgment may be impaired.

Mechanisms for help must be seen as primarily beneficial to all, and not primarily to the involved physician when help is being presented. As a profession we have accepted the principle of self-monitoring. The physician who becomes senile often has been one of the most venerated and most respected members of the medical community; hence, dealing with this problem becomes very special in scope.

Some have suggested mandatory retirement from hospital staff as one approach of help. Perhaps an annual evaluation after reaching the age of retirement would be a more flexible alternative. In physicians who have no hospital affiliation and who are not in frequent touch, peer pressure to persuade a physician to turn in his license voluntarily would certainly be less traumatic for the physician himself and for the state licensing board. Perhaps in some cases a retired physician could assume a role in speaking to older physicians to convince them of the need for retirement.

Although physicians might recognize the need for retirement, other motivations often steer them away:

- "Can't afford it, still have college-age youngsters;"

- "I like what I'm doing too much to quit;" and

- "I would hate to deprive my patients of the knowledge and skills I've accumulated in years of practice."

The real reason which prevents doctors from thinking about retiring is that they know little and can do little outside their world and that as a class they are poorly educated except in medicine. Successful, satisfying retirement requires planning, and busy doctors consider themselves far too busy to plan anything. Neglect of avocation reflects total immersion in professional activities by most physicians.

The basis of a satisfying retirement must include seeing one's self as valuable, with true self esteem, and an identity not solely based on work, output and production. If self esteem is based only on productivity, *both* are likely to decline with the years. Inevitable losses in advancing years must be met with a philosophy in faith to be useful.

Good physical health is important, of course. So-called "diseases of choice" influence much ill health, and a reasonable attitude toward diet, tobacco, alcohol, drugs, exercise and working hours, while not a guarantee, is certainly a positive step.

Essential to satisfactory retirement are security and careful financial planning—this may be at least one area where most are currently a little more involved.

Probably most vital to retirement is a positive attitude. If one views retirement as one of life's expected transitions, rather than a crisis event, then he will recognize that how retirement is viewed, planned and received will be more important than retirement per se. Retirement can be viewed as the end to a meaningful living—and may well end that way—or it can be viewed as a time of genuine freedom. Participation in life in a new way, rather than loafing, is the freedom one deserves.

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1981



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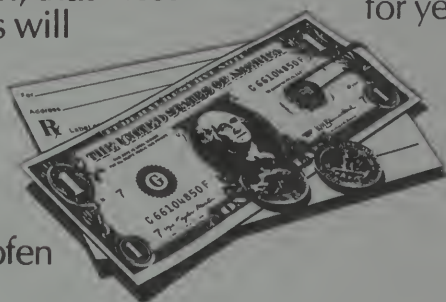
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WARNINGS: Anaphylactoid reactions have occurred in patients hypersensitive to aspirin (see **CONTRAINDICATIONS**). Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Peptic ulceration, perforation, or gastrointestinal bleeding can be fatal; however, an association has not been established. Rufen should be given under close supervision to patients with a history of upper gastrointestinal tract disease and only after consulting the **ADVERSE REACTION**.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gastric acid should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulceration or gastrointestinal bleeding.

PRECAUTIONS: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If developed, discontinue Rufen and administer an ophthalmologic examination.

Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

Rufen can inhibit platelet aggregation and prolong bleeding time. Use with caution in patients with intrinsic coagulation defects and those taking anticoagulants.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should be tapered slowly when adding Rufen.

DRUG INTERACTION: Coumarin-type anticoagulants. The physician should be cautious when administering Rufen to patients on anticoagulants.

Aspirin. Concomitant use may decrease Rufen blood levels.

PREGNANCY AND NURSING MOTHERS: Rufen should not be taken during pregnancy nor by nursing mothers.

ADVERSE REACTIONS

Incidence greater than 1%

Gastrointestinal: The most frequent adverse reaction is gastrointestinal (4% to 16%). Includes nausea*, epigastric pain*, heartburn*, diarrhea, abdominal distention, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating or flatulence). **Central Nervous System:** dizziness*, headache, nervousness. **Dermatologic:** rash* (includes maculopapular type), pruritus. **Special Senses:** tinnitus. **Metabolic:** decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to discontinuation (see **PRECAUTIONS**).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** depression, insomnia. **Dermatologic:** vesiculobullous eruptions, urticaria, erythema multiforme. **Special Senses:** amblyopia (see **PRECAUTIONS**). **Hematologic:** leukopenia, decreased hemoglobin and hematocrit. **Cardiovascular:** congestive heart failure in patients with marginal cardiac function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Stevens-Johnson syndrome. **Special Senses:** conjunctivitis, diplopia, optic neuritis. **Hematologic:** hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** glycometastasis, hypoglycemia. **Cardiovascular:** arrhythmia (Sinus tachycardia, bradycardia, and palpitation). **Renal:** decreased creatinine clearance, polyuria, azotemia.

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Reye Syndrome in Indiana

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Indianapolis

R. D. K. REYE, an Australian pathologist, and his colleagues¹ described the clinical and pathological features of the entity now referred to as "Reye syndrome" in October 1963. Johnson, an Epidemic Intelligence Service Officer with the U.S. Public Health Service, and two collaborators from the North Carolina State Board of

Health² simultaneously reported an epidemiologic study of 16 fatal cases of an encephalitis-like disease in North Carolina children. The clinicopathologic features of the patients included in these reports were identical. Many authors, quite appropriately, refer to this malady as the Reye-Johnson syndrome, although previously unrecognized cases have been identified in the medical literature.

Reye syndrome is an acute non-inflammatory metabolic encephalopathy associated with hepatic dysfunction. Biochemical abnormalities include an elevated blood ammonia (greater than twofold), serum aminotransferase (SGOT, SGPT) activities that are greater than twice normal, and a prolonged prothrombin time. The patient is characteristically anicteric with a total bilirubin less than 3 mg/dl. The cerebrospinal fluid is normal. Hypoglycemia may be observed, especially in patients less than two years of age.³

Epidemiology

Reye syndrome is primarily a pediatric disease. Suburban white children between 11 and 14 years of age are most commonly affected. Approximately 4% of the patients stricken during the 1973-74 influenza B epidemic were older than 16 years.⁴ The age range of reported patients is one week to 55 years, which underscores the need for internists, family physicians and emergency room physicians to be as familiar with the symptoms of this clinicopathologic entity as pediatricians and neurologists.

The three most common antecedent viral illnesses are influenza B, influenza A and varicella. The greatest number of cases occur between December and March, and are temporally and geographically associated with influenza epidemics.^{4,5} Sporadic cases of Reye syndrome are associated with varicella and usually involve younger patients.

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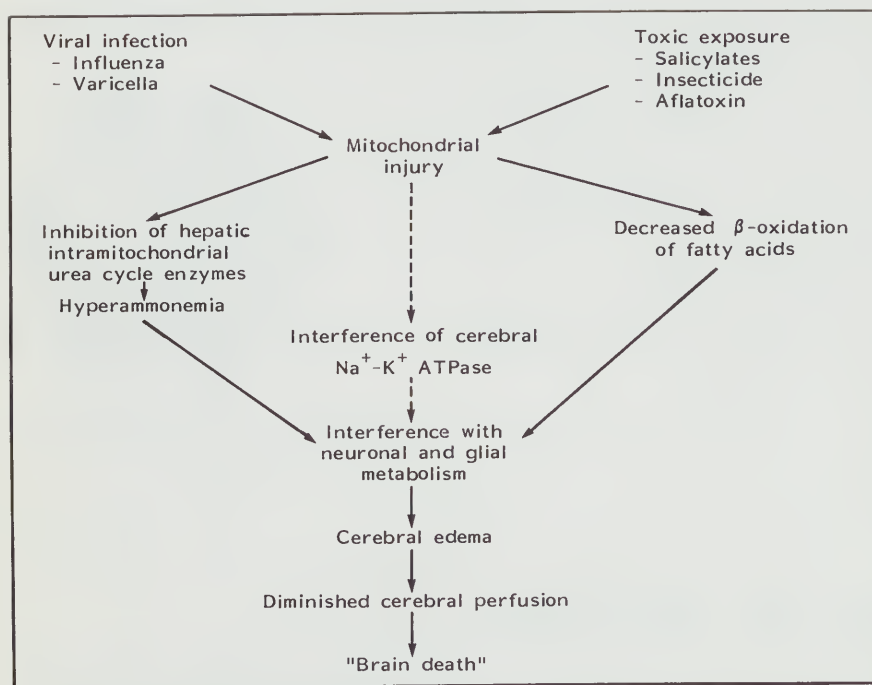


Figure 1: Schematic representation of the major pathophysiological events involved in the pathogenesis of cerebral edema in patients with Reye syndrome. Broken arrows indicate hypothetical pathways.

Pathogenesis

While the exact mechanisms responsible for the clinical manifestations of Reye syndrome are unknown, one can hypothesize from available factual data (Fig. 1). These facts include the temporal association of the symptom complex with a viral illness; hepatic mitochondrial injury (histologically⁶ and functionally⁷); depressed activities of hepatic mitochondrial urea cycle enzymes;⁸ and brain-swelling in all severely affected children.

A causal role for various toxins, especially aflatoxins, has been suggested but remains unproven. Recent epidemiological studies have suggested that aspirin may play an important complementary or synergistic role in Reye syndrome.^{9,10} We are unable to fully accept these data. While salicylism may result in breathing abnormalities, hypoglycemia, prolongation of the prothrombin time and elevation of the aminotransferases, hyperammonemia remains to be documented. We

measured blood salicylate levels on admission in 51 consecutive patients.¹¹ Forty-three patients had salicylate levels less than 15 mg/dl; seven had levels in the 16-20 mg/dl range; and only one had a level greater than 20 mg/dl (36 mg/dl). Finally, hepatic histology in Reye syndrome differs significantly from that reported in salicylism when examined under the electron as well as the light microscope.

Generalized mitochondrial injury has been demonstrated in Reye syndrome. Electron microscopic examination of cardiac muscle and renal tubule cells, as well as hepatocytes, reveal mitochondrial abnormalities. The accumulation of ammonia may not be responsible for the encephalopathy, but rather reflects the severity of the overall mitochondrial damage. Thus, while the exact pathogenesis of Reye syndrome remains unknown, severe mitochondrial damage and dysfunction would seem to provide a common thread.

Clinical Presentation and Laboratory Evaluation

The typical patient (Fig. 2) presents with a history of a viral illness of one to six days duration. This inciting illness may be improving when the patient develops pernicious vomiting. We have been unable to precisely determine whether this vomiting is accompanied by nausea. Vomiting due to increased intracranial pressure is characteristically unassociated with nausea. The vomiting may last from one to 48 hours. Central nervous system dysfunction, varying from pronounced listlessness to coma, then becomes evident. As a general rule, the shorter the interval between the onset of vomiting and the development of central nervous system dysfunction, the more severe and life-threatening the illness. Infants frequently present with seizures and respiratory irregularities.³

Lovejoy¹² established criteria for staging the severity of the illness based on the neurologic examination (Table 1). Statistics compiled after the 1973-75 influenza B epidemic revealed a mortality rate of 50% for patients who progressed to stage III, 69% for those in stage IV, and 83% for patients progressing to stage V.⁴

The essential laboratory data confirm the presence of hepatic dysfunction. Studies obtained on admission to our hospital are outlined in Table 2. Hypoglycemia is found in 25% of patients and is more common in patients less than two years of age. Rarely, the serum amylase activity is elevated suggesting pancreatic involvement. The more severely affected patients have depressed serum phosphate levels, presumably due to increased urinary losses. A toxicology screen is usually unrewarding, and the cerebrospinal fluid is unremarkable. The blood gases routinely suggest a respiratory alkalosis.

We perform a percutaneous liver biopsy on all patients less than two years of age, and on all atypical patients. The biopsy characteristically reveals panlobular, intracytoplasmic, small-droplet fat deposition without nuclear displacement. There is minimal bile stasis, insignificant inflammation, and no evidence of hepatocellular necrosis. Electron microscopy reveals distortion and disruption of the mitochondria, proliferation of the smooth endoplasmic reticulum, and increased peroxisomes.^{6,13}

Management

The management of Reye syndrome has become progressively more aggressive during the past decade. While there is a lack of universal agreement on specific modes of therapy, the goals of most treatment protocols are to sustain vital organ function, prevent brain stem herniation, and maintain critical cerebral perfusion. Initial protocols emphasized supportive care,¹⁴ exchange transfusion¹⁵ and peritoneal dialysis.¹⁶ These measures were largely directed at correcting the metabolic abnormalities. Limited success was achieved. Continuous

TABLE 1 Neurologic Criteria for Staging Patients with Reye Syndrome	
Stage 0:	The patient is alert and oriented to place and time. There is an immediate normal appropriate response to painful, tactile, verbal and visual stimuli.
Stage I:	The patient is vomiting, lethargic and/or indifferent. The patient may be belligerent and uncooperative, but can obey commands and does not lapse into sleep when left undisturbed. The younger child may have breathing abnormalities or be postictal.
Stage II:	The patient is disoriented, delirious and combative when aroused; will lapse into sleep when not disturbed; and may be hyper-reflexic. Hyperventilation or abnormal breathing patterns may be seen. The patient responds appropriately to noxious stimuli and has no abnormal posturing.
Stage III:	The patient is comatose and does not verbalize or respond to command. There is no appropriate motor response to pinprick. The patient exhibits central hyperventilation, decorticate posturing and/or rigidity. There is preservation of pupillary light reflexes, oculovestibular and oculocephalic reflexes. The younger child may have Cheyne-Stokes or Biot's breathing.
Stage IV:	The patient has deteriorated. There is decerebrate posturing and rigidity with loss of oculocephalic and oculovestibular reflexes. There are large fixed pupils and there may be other evidence of brain stem dysfunction (such as loss of corneal reflexes).
Stage V:	The patient is flaccid with agonal respirations and fixed, dilated pupils. There may be cardiovascular instability and/or evidence of herniation such as unequal pupils.

intracranial pressure monitoring began to receive enthusiastic support in the latter half of the last decade. Therapy since that time has been more specifically aimed at the control of cerebral edema and the

maintenance of adequate cerebral perfusion.

In 1978, Marshall, *et al*¹⁷ reported their experience with pentobarbital-augmented osmotherapy in the management of seven severely affected patients, all of whom survived. Pentobarbital, a short-acting barbiturate, has been demonstrated to have a favorable effect on cerebral edema in laboratory animals and humans.¹⁸ Several postulated actions of short-acting barbiturates may contribute to this observed effect; these include:

- Cerebral vasoconstriction which reduces intracranial blood volume;
- Improved vascular tone which decreases cerebral edema formation by lowering hydrostatic pressure;
- Reduction of cerebral metabolism;
- Reduction of systemic arterial pressure which decreases cerebral blood flow;

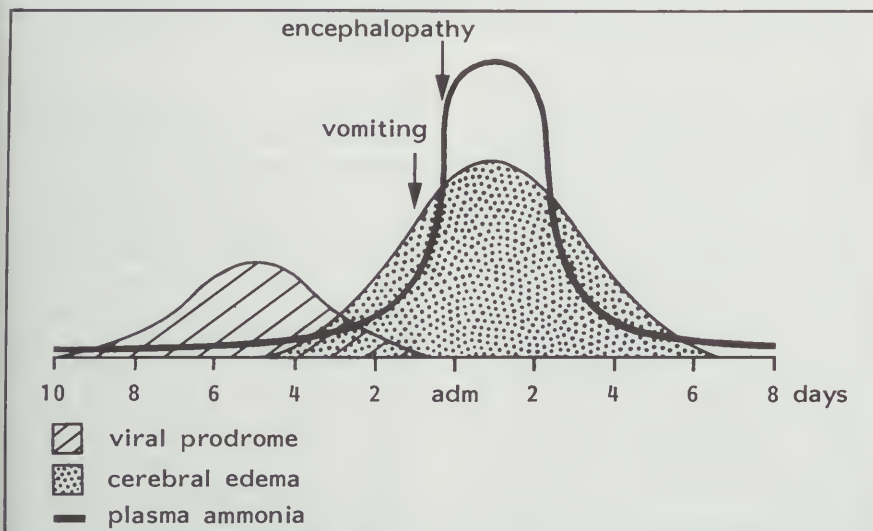


Figure 2: Schematic representation of the typical clinical course of Reye syndrome.

e) Stabilization of cell membranes by scavenging free radicals; and

f) Suppression of subclinical seizure activity.

The use of anesthetic doses of barbiturates is not without risk. Complications of this therapy include systemic hypotension, decreased cardiac output, and signs and symptoms of barbiturate withdrawal upon cessation of therapy.

Pentobarbital-augmented osmotherapy has been used in the management of severely affected patients (coma stage III-IV; blood ammonia elevated greater than 500%) at the James Whitcomb Riley Hospital for Children-Indiana University Medical Center since 1978 with encouraging results (Fig. 3). The positive experience obtained at our hospital and several others has led to the initiation of a multicenter comparative study of pentobarbital-augmented osmotherapy versus osmotherapy alone in the management of severe Reye syndrome.

Principles of Management

Less severely affected patients, i.e., those in coma stages I and II, with blood ammonia levels elevated

TABLE 2

Initial Laboratory Evaluation of Patients with Reye Syndrome

CBC, platelet count
Electrolytes, BUN, creatinine, glucose, serum osmolality
Calcium, phosphorus
SGOT/SGPT, fractionated bilirubin
Ammonia
Alkaline phosphatase, amylase
Prothrombin time, PTT, fibrinogen
Salicylate level and toxicology screen
Urinalysis
Urine electrolytes and osmolality
CSF for cell count, protein, glucose, culture and sensitivity
Arterial blood gases

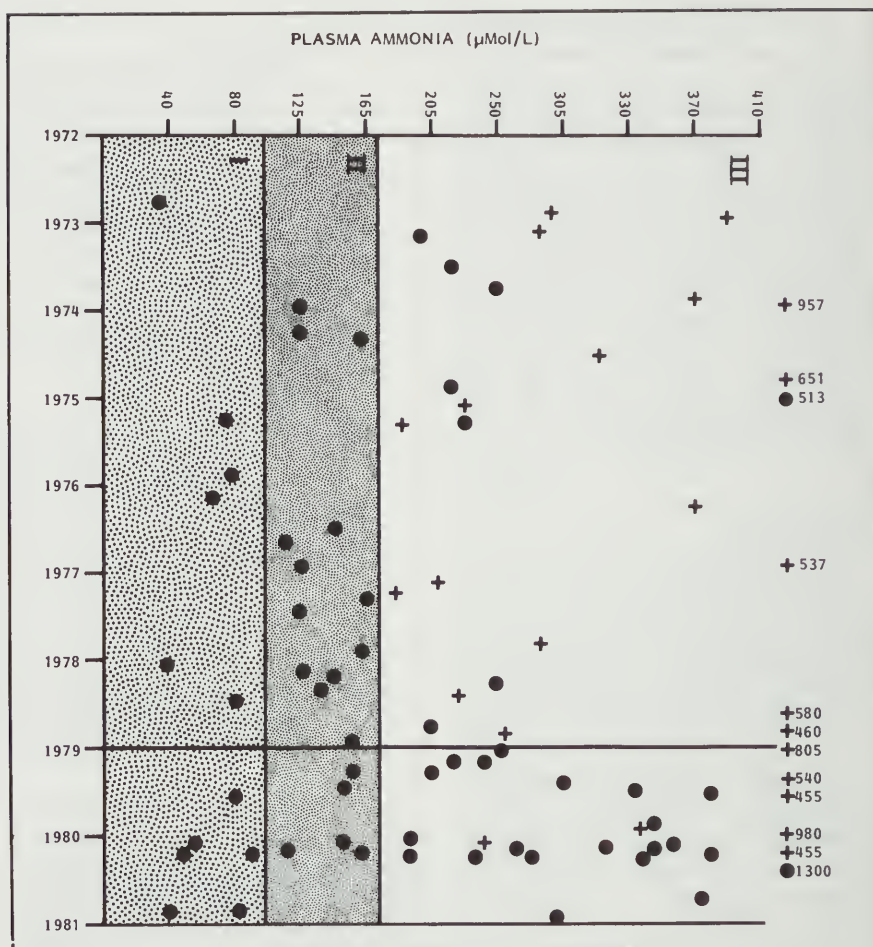


Figure 3: Relationship of mortality to peak plasma ammonia levels. Deaths are represented by crosses. Vertical line corresponds with the institution of pentobarbital-augmented osmotherapy. Horizontal lines denote ammonia levels of three and five times normal. Pentobarbital-augmented osmotherapy has improved survival in patients with peak ammonia levels greater than five times normal (Group III) from 31% to 76%.

less than fivefold, are managed expectantly. All of our patients with peak blood ammonia levels elevated less than fivefold have survived. We generally limit their utilizable water by initially restricting total fluids to 1000-1200 ml/M²/day. The fluid is given as 10% dextrose in water in order to prevent hypoglycemia. Electrolytes are added to correct serum deficits and replace losses. Potassium is provided as a phosphate salt in order to replace excessive urinary phosphate losses. Parenteral vitamin K (3-10 mg) is administered to correct

the hypoprothrombinemia. The patient is observed carefully in the intensive care unit.

More severely affected patients, i.e., patients who are in coma stages III to V, with blood ammonia levels which are elevated greater than fivefold, are managed more aggressively. They are taken to the operating room where endotracheal intubation is accomplished by a physician who is experienced in the intubation of patients with elevated intracranial pressure (ICP). After that is accomplished, an ICP monitor is placed by a neurosurgeon. An

arterial line is established for monitoring the arterial blood gases and biochemical studies. Two venous access lines are placed; one is either a central venous pressure or a pulmonary artery pressure catheter.

The goal of therapy is to prevent damaging increases in the ICP while sustaining function of all other organ systems. We strive to keep the ICP below 18 mm Hg and the cerebral perfusion pressure (mean arterial blood pressure minus the mean intracranial pressure) above 50 mm Hg. The goal of fluid therapy is to achieve a state of normovolemic dehydration, i.e., normal blood volume with a serum osmolality of 305 to 320 mOsm/L. Control of the ICP is accomplished by maintaining the arterial pCO₂ between 22 and 27 mm Hg as well as by the judicious use of mannitol (0.5 to 1.0 gm/kg/dose). The blood volume is maintained by the administration of colloid.

As indicated previously, we have placed severely affected patients into pentobarbital coma since 1978. This is accomplished by the administration of a loading dose of 20 mg/kg, usually in two boluses of 10 mg/kg, followed by hourly infusions of 1-3 mg/kg designed to maintain a steady state blood level of 35 to 50 ug/ml. At this blood level, the pupils tend to be pinpoint and minimally reactive, and the electroencephalographic tracing is virtually isoelectric. The patient is maintained in pentobarbital coma until he/she has not required mannitol for 36-48 hours. We then wean the pentobarbital over 24 hours and allow the patient to awaken from coma.

A decompressive craniectomy has been necessary in several patients whose ICP could not be controlled by the above measures. The neurosurgeon performs a wide frontal craniectomy and quick-freezes the removed bone in an antibiotic solution. The bone-flap is replaced two to three weeks after

the patient has recovered.

While it is generally agreed that patients with Reye syndrome should be transferred to a tertiary care center with a specific Reye syndrome management team, critical care must begin at the local hospital prior to transfer. Hypertonic glucose (10%) in 1/2 normal saline should be instituted to prevent hypoglycemia. One dose of mannitol (1 gm/kg) may be given prior to transfer. Prolonged interruption in the glucose infusion should be avoided since glucose homeostasis is impaired in these patients, especially those under two years of age.

Conclusion

We have reviewed the criteria for the diagnosis of Reye syndrome as well as for determining the severity

of the illness, and we have presented our concepts of the pathogenesis of this severe childhood illness. There has been a recent shift of management protocols from treatment of the metabolic abnormalities to aggressive control of the intracranial pressure. Barbiturate coma seems especially promising since, in conjunction with advances in patient monitoring, it has been chronologically associated with a significant improvement in the mortality rate of severely affected patients admitted to Riley Children's Hospital.

The improved survival of patients with Reye syndrome reflects increased awareness by local physicians as well as aggressive management of these patients at tertiary care facilities specializing in the management of patients with Reye syndrome.

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Photoplethysmographic Monitoring of Vascular Status in Burned Extremities

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CIRCUMFERENTIAL BURNS of the extremities may lead to an ischemia-edema cycle with rapid onset of vascular compromise. We have developed a small, non-invasive photoplethysmograph (PPG) for continuous monitoring of extremity vascular status.

The technique uses a modified infrared light emitting diode/photodetector array positioned over a nailbed of the affected extremity and interfaced to standard monitoring equipment. By detecting the amount of infrared light reflected back by the blood volume in the illuminated vascular bed, pulsatile flow variations, if present, are displayed.

Laboratory studies have confirmed good correlation between the PPG and diminished blood flows (by Xe^{133} clearance) in simulated compartment syndromes while

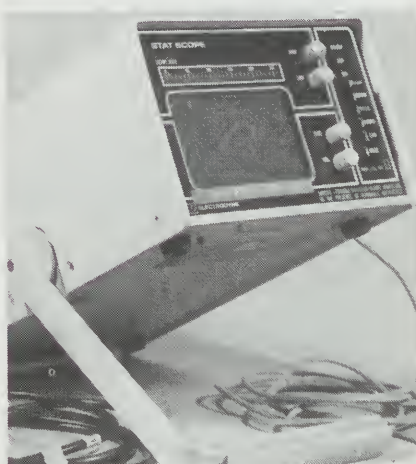


FIGURE 1: PPG probe and monitor

Doppler waveforms remain virtually unchanged.¹

Twenty-two patients with 36 affected extremities have been studied clinically. Patients' ages varied from 17 to 57 years while burn size varied from 12-90%, with an average burn surface area of 47%. At admission four limbs (three patients) were so severely involved that escharotomy was performed as an emergency procedure before PPG was used.

Postoperatively, all four limbs showed good pulsatile flow by PPG. Two patients with three burned extremities had moderate pulse wave forms initially, but by the second day post burn the pulse wave became weak; escharotomy was performed on all three extremities with return of good pulsatile flow.

The remaining 15 patients with 25 affected extremities had pulsatile blood flow by PPG and no escharotomy was performed. Six of these extremities had clinical signs suggesting escharotomy be considered, but the pulse form remained good and escharotomy was not performed. No sequelae related to increased tissue pressure or muscle damage has been noted in any of these patients. A muscle biopsy obtained from one patient, at the time of burn scar excision and skin grafting, was normal.

The constricting and ischemic effect of circumferential burns is easily understood. Using clinical criteria to establish guidelines for escharotomy is very difficult and unreliable. Experienced physicians have reported a 50% error in clinically estimating blood flow to the injured extremity and thus in establishing the need for surgical decompression.

TABLE 1

Methods for assessing muscle compartment pressure:

- 1) Clinical observations
- 2) Doppler exam
- 3) Xe^{133} washout
- 4) Wick catheter
- 5) Whitesides' methods²
- 6) Continuous low flow method as described by Matsen³

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The signs of swelling, pain out of proportion to the injury, and sensory and/or motor deficits are difficult to test reliably and often a problem to separate from the injury itself. By the time peripheral pulses have disappeared, compartment pressures are so high and have been elevated for so long that the prevention of long-term sequelae is unlikely.

Blood flow in the involved limbs has been monitored using the Doppler flowmeter. This has proved unreliable as a guide to flow in nutrient vessels since its wave form remains essentially unchanged at tissue pressures that necessitate escharotomy. In addition, the audible sound of the Doppler is the signal usually monitored. This does not disappear until the tissue pressure is higher than systolic pressure, a level significantly higher than the pressure necessitating compartment decompression.

Invasive measures such as Xenon¹³³ washout and continuous compartment pressure monitoring also have been suggested. While Xe¹³³ washout is reliable in assessing blood flow in the involved muscle, it is expensive and requires highly specialized instrumentation. The Wick catheter gives a continuous, reproducible readout of the intracompartmental pressure. In extensive burns it may be cumbersome

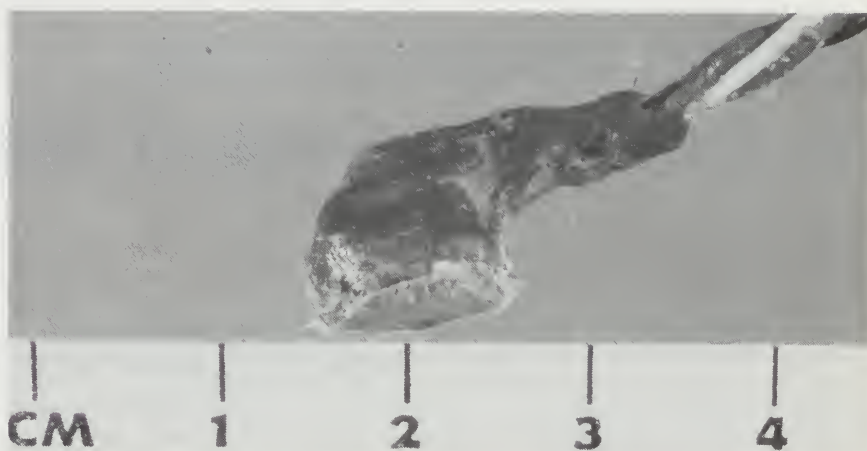


FIGURE 2: The PPG probe

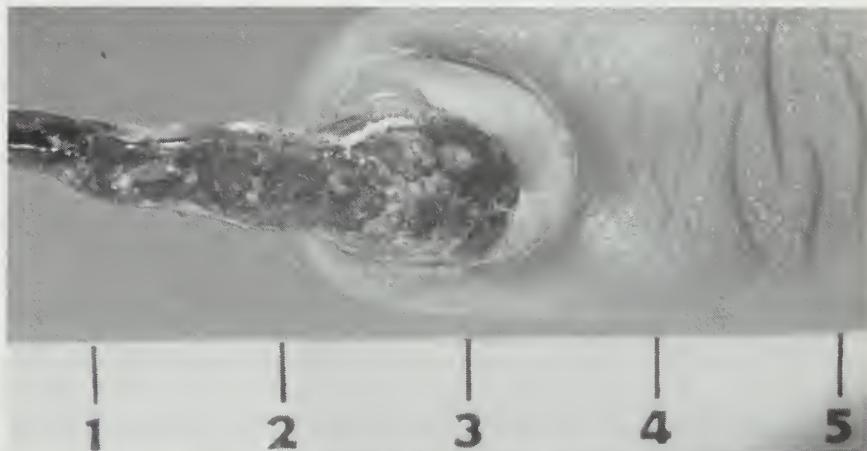


FIGURE 3: PPG probe fixed to a nailbed for use in monitoring

to use and requires frequent recalibration. In addition, there is not a consensus regarding the intracompartmental pressure at which decompression should be undertaken. Some recommend decompression at an absolute pressure of 30 mm Hg while others recommend a pressure equivalent to two-thirds diastolic pressure.

The photoplethysmograph (PPG) seems to combine the strengths of the various methods. It is portable, small (4 mm × 4 mm × 4 mm), applied to a fingernail over the nailbed, and easily incorporated into existing medical instrumentation. It gives a continuous readout and is readily accepted by medical and nursing personnel. When the

PPG wave form is compared to Xe¹³³ washout studies, an excellent correlation exists between a decrease in PPG signal amplitude and a decrease in Xe washout. Thus, the PPG represents a reliable, continuous, non-invasive monitor of the change in blood flow within the extremity in jeopardy.

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TABLE 2

	Patients	Extremities
Total	22	35
Escharotomy before PPG	3	4
PPG	19	31
Escharotomy indicated	4	7
Escharotomy done	2	3
Escharotomy not indicated	15	25

Cutting Hospital Costs: An Orthopedic Surgical Alternative

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ABSTRACT

In an attempt to help cut the rising costs of hospitalization, an alternative approach to doing bilateral total hip replacements was reviewed. This procedure is most often done as two unilateral operations. This study looks at the cost comparison when the bilateral replacement is done as a single operation requiring only one hospital admission.

The economical results were very impressive in favor of the single procedure. The hospital costs brought an average savings of 30% and a hospital stay of 41% fewer days in comparison to two unilateral procedures.

Total hip replacement is a highly specialized orthopedic procedure and every surgeon does not feel comfortable subjecting patients to a simultaneous bilateral procedure. What we are advocating by this study is that, for the technically trained surgeon who feels it is feasible to do a simultaneous bilateral total hip replacement, the economical savings is a highly significant variable.

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BY 1981, AMERICANS are expected to spend \$229 billion on health care from aspirin to body scanners. That is almost 20 times as much as was spent in 1950. Even when negating the effects of inflation, health spending next year will be four times what it was 30 years ago.¹

U. S. News and World Report tackled the reason for the financial jump. Hospital spending due to inflation, remodeling, and building ranked number one. Not far behind came physicians. Unlike the economical supply and demand, the more doctors, the higher the cost. Physicians are in greater quantity and have had far more training than ever before, the result of increased spending on training facilities and instructions. By 1981, estimates are for one physician for every 490 persons in the United States, the high-

TABLE 1
Unilateral and Bilateral Data 1978

	Days in Hospital		Cost	
	Bilateral (N=24)	Unilateral (N=58)	Bilateral	Unilateral
Mean	16.4	13.9	\$ 5,780	\$4,137
Standard Deviation	4.5	3.5	1,516	974
Maximum	27.0	28.0	10,038	7,870
Minimum	13.0	11.0	3,228	3,070
Mode	13.0*	12.0*	—	—
Median	14.5**	12.5**	5,369	3,783

* Most frequent
** 50% line

est doctor patient ratio since the turn of the century.²

In short, it has become both hospital and professional responsibility to help cut hospital costs. We have found one surgical alternative resulting in a 30% hospital cost savings to the person needing bilateral total hip replacement surgery.

Materials and Methods

The patient needing bilateral total hip replacements generally undergoes two surgical procedures during two separate hospitalizations. There are, however, highly specialized surgeons who feel it is technically feasible to replace both hips during a single operation.

During a recent study of 700 hip replacements,³ this author found that there is no greater risk or increased complication rate when comparing the postoperative course of the bilateral patient to the unilateral total hip patient. All patients were followed a minimum of one

year and up to four years postoperative. All surgery was performed by the senior author and all patients followed the same postoperative physical therapy program.

Results

When statistical analyses equalized criteria variables we looked at the cost factor for patients operated on in 1978. During that year 24 patients underwent simultaneous bilateral total hip replacements and 58 patients underwent unilateral total hip replacements. Hospital stay averaged only 2.5 days longer for the bilateral patient and an additional hospital cost of \$1,543 (Table 1). It is interesting to note that the additional prosthesis itself costs \$750.

To take the data a step further, we compared a group of patients who had had two unilateral operations against a group who had had one bilateral operation. Because the unilateral group in actuality had

only one operation, a method was used to equate the cost of one bilateral operation with the cost of two unilateral operations. A supposition was made assuming the mean hospital cost and days in the hospital of two unilateral operations is twice the mean cost and hospital days of a single unilateral. (2 Unilateral = 2 x 1 Unilateral).

The results of this comparison were statistically very impressive (Table 2). Days spent in the hospital for a bilateral were 59% of the days spent for two unilaterals. Cost for a bilateral was 70% of the cost for two unilaterals. In dollars and cents, the result was substantial savings. The patient actually saved \$2,494 by having both hips replaced during the same operation.

A variable that was difficult to assess, but nevertheless vital, was time lost. Most of the patients were either retired or self-employed; however, in both groups the estimated time to return to work or resume normal activity was three months. The recovery period was the same for the bilateral patient as for the unilateral patient.

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TABLE 2
Cost Factor Comparing Two Unilaterals to One Bilateral

	Days		Cost	
	Bilateral	Unilateral*	Bilateral	Unilateral*
Mean	16.4**	27.8**	\$5,780	\$8,274
Standard Deviation	4.5	7.0	1,516	1,948

* 2 unilateral = 2 x 1 unilateral
** p < .011

Primary Meningococcal Pneumonia: A Report of Three Cases

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P RIMARY MENINGOCOCCAL pneumonia is caused by *Neisseria meningitidis* pathogens, without evidence of concomitant meningeal involvement or the Waterhouse - Friderichsen syndrome. Pneumonia does infrequently occur in patients with meningococcal meningitis or fulminant meningococcemia. Although primary meningococcal pneumonia is less well known, it may be more common than the aforementioned. It is not characterized by a distinctive clinical presentation and thus may be unrecognized. Primary meningococcal pneumonia may follow influenza or adenovirus infection.¹⁻³ Empyema is an unusual complication.

Case Reports

Patient 1

A 56-year-old white woman was hospitalized with a four-day history of low-grade fever and a two-day history of progressive dyspnea and pleuritic right chest pain radiating

ABSTRACT:

Three cases of primary meningococcal pneumonia are presented. Blood cultures from two patients grew *Neisseria meningitidis* Serogroup W-135 and Case 1 was complicated by empyema. All three patients recovered.

KEY WORDS:

Neisseria meningitidis
Pneumonia
Empyema

to her right shoulder. She smoked cigarettes but denied increased cough or sputum production. She had no history of recent dental work, vomiting or known exposure to communicable diseases. She had attended a large family gathering five days before admission.

Physical examination revealed an alert woman in moderate respiratory distress. There was no rash. Her blood pressure was 130/80 mm Hg with heart rate 126/min., respiratory rate 34/min. and temperature 101.4°F. Her throat was clear and there was neither cervical lymphadenomegaly nor nuchal rigidity. There was dullness to percussion and the breath sounds were decreased over the inferior right hemithorax. Rales were heard adjacent to the area of dullness. Cardiac examination revealed only a regular tachycardia; abdominal examination was unremarkable.

Her hemoglobin was 14.5 gm/dL, hematocrit 44% and white blood cell count 20,100/mm³ with 10 bands, 77 polymorphonuclear leukocytes, 6 lymphocytes and 7 monocytes. Arterial blood gases, on room air, demonstrated pO₂ 52 mm Hg, pCO₂ 31 mm Hg and pH 7.41. Posteroanterior and lateral chest

roentgenograms revealed a right pleural effusion with right upper and lower lobe infiltrates (Figures 1A and B).

Sputum production was scanty and Gram's stain of expectorated sputum demonstrated scattered polymorphonuclear leukocytes and mixed bacterial flora. Intracellular Gram negative diplococci were not seen. Thoracentesis yielded turbid fluid with a specific gravity of 1.018, protein 5.4 gm/dL, glucose 15 mg/dL, LDH 1,660 units/mL, amylase 55 units/dL and pH 6.5. The white blood cell count was 73,600/mm³ with 82 polymorphonuclear leukocytes, 4 lymphocytes and 14 monocytes. The red blood cell count was 19,700/mm³. Gram's stain of the pleural fluid demonstrated extracellular and intracellular Gram negative diplococci. Two of two blood cultures and a pleural fluid culture grew *Neisseria meningitidis* serogroup W-135. Lumbar puncture was not performed.

Chest tube drainage of the right chest was instituted and therapy begun with intravenous aqueous penicillin G. The rest of her hospital course was uneventful and she was released on the 14th hospital day, the empyema having resolved.

Patient 2

An 82-year-old black woman, a nursing home resident, was hospitalized with a one-day history of fever and a 10-day history of vague chest and back discomfort. She had suffered a right intertrochanteric hip fracture four months earlier, requiring surgical fixation. She had been hospitalized for three weeks and was released to the nursing

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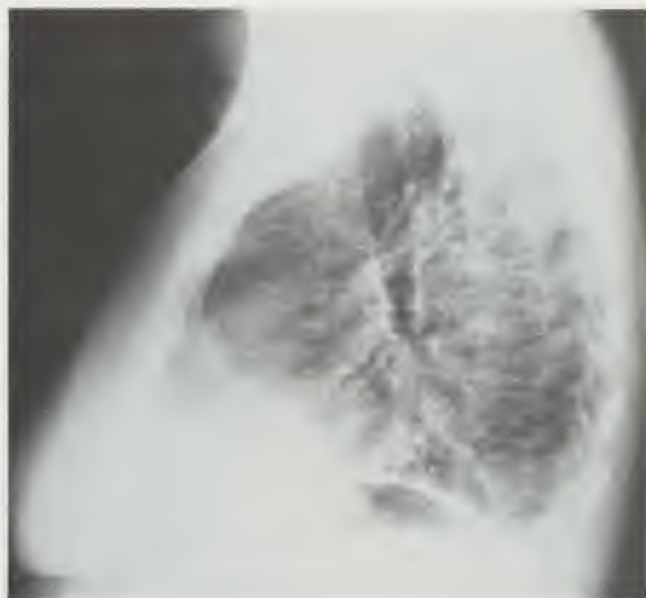


FIGURE 1 A, B: Posteroanterior (left photo) and lateral (right) chest roentgenograms demonstrating right upper and lower lobe infiltrates with right pleural effusion.

home three months prior to this admission.

Physical examination revealed an alert woman in mild distress with no rash. Her blood pressure was 126/60 mm Hg with heart rate 112/min., respiratory rate 20/min. and

temperature 101.9°F. She did not have nuchal rigidity. Coarse rales were heard over both inferior hemithoraces. Cardiac and abdominal examinations were unremarkable.

Her hemoglobin was 11.9 gm/dL,

hematocrit 35.7% and white blood cell count 27,000/mm³ with 38 bands, 57 polymorphonuclear leukocytes, 1 lymphocyte and 4 monocytes. Arterial blood gases on room air demonstrated pO₂ 57 mm Hg, pCO₂ 28 mm Hg and pH 7.47. Pos-

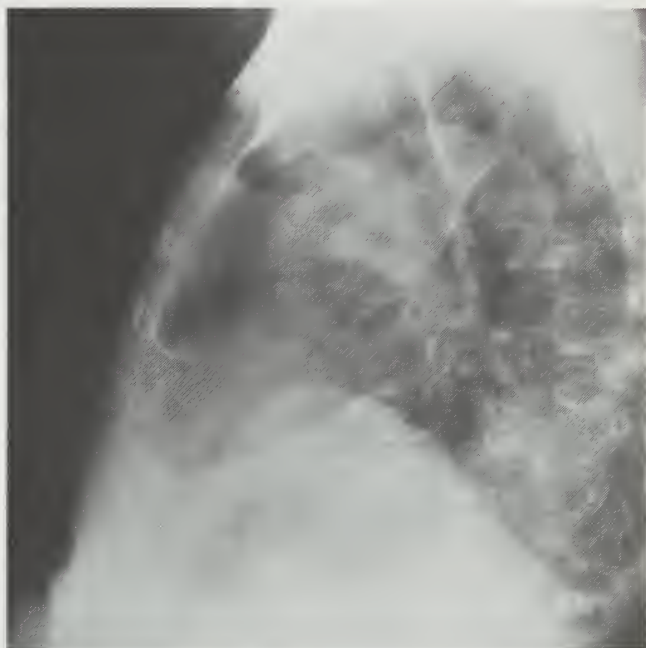


FIGURE 2 A, B: Posteroanterior (left photo) and lateral (right) chest roentgenograms demonstrating left upper and lower lobe infiltrates.



FIGURE 3 A, B: Posteroanterior (left photo) and lateral (right) chest roentgenograms demonstrating a right lower lobe infiltrate.

teroanterior and lateral chest roentgenograms revealed left upper and lower lobe infiltrates (Figures 2A and B).

No sputum was obtainable. Lumbar puncture was performed yielding pink but non-xanthochromic cerebrospinal fluid containing 20,100 red blood cells/mm³ and 36 white blood cells/mm³ corrected to a white blood cell count of zero. Cerebrospinal fluid protein was 23 mg/dL and glucose 98 mg/dL. Gram stain and cultures of the cerebrospinal fluid were negative. Two of two blood cultures grew *Neisseria meningitidis* serogroup W-135.

She was initially treated with tobramycin and carbenicillin, later changed to ampicillin when culture results were available. Her hospital course was uneventful and she was released on the eighth hospital day.

Patient Three

A 65-year-old white man was hospitalized with a three-day history of productive cough and wors-

ening dyspnea. He denied fever or chills. He gave a long history of chronic obstructive pulmonary disease with documented respiratory insufficiency and had been treated with bronchodilators.

Physical examination revealed an alert male in moderate respiratory distress. There was no rash. His blood pressure was 130/90 mm Hg with heart rate of 140/min, respiratory rate 28/min and temperature 100.6°F. There was no nuchal rigidity. There was dullness to percussion and scattered rales were heard over the inferior right hemithorax. The heart sounds were distant and the abdominal examination was unremarkable.

His hemoglobin was 13.2 gm/dL, hematocrit 44% and white blood cell count 13,900/mm³. Arterial blood gases on two liters per minute of nasal oxygen demonstrated pO₂ 56 mm Hg, pCO₂ 29 mm Hg and pH 7.51. Posteroanterior and lateral chest roentgenograms revealed a right lower lobe infiltrate (Figures 3A and B).

Transtacheal aspiration was performed and Gram's stain of the aspirate revealed many polymorphonuclear leukocytes and extracellular and intracellular Gram negative diplococci. Culture of the transtracheal aspirate grew predominantly *Neisseria meningitidis*, serogroup Z. Lumbar puncture was not performed.

He was treated with ampicillin and his hospital course was uneventful. He was released on the seventh hospital day.

Comment

The incidence of primary meningococcal pneumonia is unknown but is likely underestimated due to a low index of clinical suspicion, the insensitivity of routine culture techniques for *Neisseria meningitidis*, and the frequent use of penicillin. Previous reports suggest an undiagnosed reservoir of this disease. Nine patients with meningococcal pneumonia, representing 4.5% of all patients with pneumonia seen during a seven-month period

in an urban hospital, were reported by Lewis, *et al.*⁴ In a population of military recruits with pneumonia, transtracheal aspirations combined

with appropriate culture techniques yielded 68 cases of primary meningococcal pneumonia at one installation in a four-year period.⁵

A heightened index of clinical suspicion should exist during influenza outbreaks.⁶ More than 100 cases of primary meningococcal

Table 1

Author	Year	Age and Sex	Chest Roentgenogram*	Sputum Gram Stain†	Sputum Culture‡	Blood Culture	Pleural Fluid Culture	<i>Neisseria meningitidis</i> Serogroup§	Outcome¶
Roberg	1945	18M	PA	+	+	0	0	0	R
Brick	1948	56M	LI	0	—	+	0	1	R
		53M	PE	+	+	—	+	1	D
Meltzer et al	1957	64M	LI	0	+	+	0	0	R
Paine et al	1967	16M	LI	+	+	—	0	B	R
Lewis et al	1973	48M	UI	0	+	0	0	NG	R
		36F	UI	0	+	0	0	NG	R
		46M	UI	0	+	0	0	0	R
		55M	UI	0	+	0	0	NG	R
		74M	UI	0	+	0	0	NG	R
		76M	UI	0	+	0	0	NG	D
		26F	UI	0	+	0	0	Y	R
		51F	UI	0	+	0	0	B	R
		67M	UI	0	+	0	0	B	D
Ball et al	1974	22M	BI	+	+	+	0	C	D
Similack	1974	19M	LI	0	0	+	0	Y	R
		24M	UI	+	0	+	0	Y	R
		20M	LI	0	0	+	0	Y	R
Jacobs et al	1974	19M	BI	+	+	+	0	Y	R
Olson et al	1975	17-	6UI	6+	6TT+	0	0	6Y	6R
(6 cases)		27M							
Irwin et al	1975	16F	LI	+	TT+	—	0	Y	R
		17M	BI	+	TT+	—	0	Y	R
		19M	NI	+	TT+	—	0	Y	R
Galpin et al	1975	34M	PE	+	TT+	—	—	29-E	R
Barnes et al	1975	24M	LI	+	+	+	0	B	R
Koppes et al	1977	17-	15PE	0	64TT+	10+	0	68Y	68R
(68 cases)		24M							
Hersh et al	1979	16F	LI	+	+	+	0	Y	R
Cohen et al	1979	52M	UI	0	+	+	—	Y	D
Rose et al	1981	87M	LI	+	TT+	—	0	B	R
		69M	LI	+	TT+	—	—	B	R
Darnell et al	1981	56F	PE	—	—	+	+	W-135	R
		82F	LI	0	0	+	0	W-135	R
		65M	LI	+	TT+	—	0	Z	R
TOTAL		105 cases			95+	22+	2+	83Y	100R

* PA = patchy alveolar infiltrate; LI = lobar infiltrate; PE = pleural effusion; UI = unspecified infiltrate; BI = bilateral infiltrates; NI = necrotizing infiltrate

† 0 = information not available

+ = gram negative intracellular diplococci seen

— = gram negative intracellular diplococci not seen

‡ + = culture positive for *Neisseria meningitidis*

— = culture negative for *Neisseria meningitidis*

TT = transtracheal aspiration

§ NG = not groupable

¶ R = recovered; D = died

pneumonia were reported during the influenza pandemic of 1919 and five of these cases were complicated by empyema.⁷⁻¹¹

Primary meningococcal pneumonia does not have a clinical or radiographic picture which distinguishes it from other pneumonias. In patients with clinically manifest pneumonia, diagnosis of a meningococcal etiology requires predominant isolation of *Neisseria meningitidis* from sputum and/or blood. Culture specimens require specific bacteriologic handling and are not routine.¹² A positive expectorated sputum culture does not suffice to establish the diagnosis since the throat carrier rate for *Neisseria meningitidis* may be 10% or higher.¹³ Transtracheal aspiration is, therefore, the diagnostic procedure of choice. Blood cultures are posi-

tive in one-fifth of cases (Table 1^{2-5, 13-23}).

Chest roentgenograms demonstrate various patterns of infiltration that may be bilateral. Though pleuritic pain and effusion often are described in primary meningococcal pneumonia, empyema is now uncommon. Only two of 102 cases reported since 1945 have had empyema (Table 1).

Serogroup Y is the most common (83 of 105) recently reported *Neisseria meningitidis* pathogen in primary pneumonia (Table 1). Serogroup W-135 has not been described previously in this disease but may be increasing in frequency.²⁴

The clinical course of primary meningococcal pneumonia ranges from uncomplicated lobar pneumonia to, rarely, lethal bilateral

pneumonia. One-hundred of 105 patients have survived (Table 1). Penicillin is the antibiotic of choice; chloramphenicol is reserved for penicillin-sensitive individuals.

Surveillance of close contacts of patients with primary meningococcal pneumonia is indicated, although the incidence of secondary infection is unknown. Nosocomial transmission of *Neisseria meningitidis* has been reported and in two instances the index cases had meningococcal pneumonia.²⁶⁻²⁷ Both of these cases were initially unrecognized. Respiratory isolation is therefore indicated for hospitalized patients with meningococcal pneumonia. Early chemoprophylaxis with rifampin or minocycline hydrochloride is recommended for household or intimate contacts of patients with meningococcal disease.²⁵

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CME QUIZ

Reye Syndrome in Indiana

CONTINUED FROM PAGES 785-789

TO OBTAIN ONE HOUR OF CATEGORY 1 AMA CME CREDIT, answer the following questions by circling the correct answer on the answer sheet below. Complete and clip the application form and mail it to: **Indiana University School of Medicine, Division of Continuing Medical Education, 1100 W. Michigan St., Indianapolis 46223.**

- Which of the following laboratory abnormalities does *not* occur in conjunction with Reye syndrome?
 - Prolonged prothrombin time
 - Hyperbilirubinemia
 - Hyperammonemia
 - Hypoglycemia
- Which one of the following laboratory abnormalities occurs more frequently in infants than older children with Reye syndrome?
 - Prolonged prothrombin time
 - Hyperbilirubinemia
 - Hyperammonemia
 - Hypoglycemia
- All of the following have been considered potential toxins in the etiology of Reye syndrome *except*:
 - Salicylates
 - Acetaminophen
 - Aflatoxin
 - Hypoglycin
- All of the following antecedent viral illnesses have been associated with Reye syndrome *except*:
 - Upper respiratory infection
 - Gastroenteritis
 - Encephalitis
 - Varicella
- The ultrastructural abnormality in the liver of patients with Reye syndrome primarily involves the:
 - Mitochondria
 - Golgi apparatus
 - Smooth endoplasmic reticulum
 - Rough endoplasmic reticulum
- Arterial blood gases in patients with Reye syndrome frequently exhibit:
 - Metabolic acidosis
 - Metabolic alkalosis
 - Respiratory acidosis
 - Respiratory alkalosis
- The neurologic examination of severely affected patients with Reye syndrome (Lovejoy III-V) may reveal all but one of the following. Identify the exception.
 - Belligerence and combativeness
 - Loss of oculocephalic reflexes (doll's eyes)
 - Decorticate posturing
 - Loss of oculovestibular reflexes (calories)
- At the present time, patients with severe Reye syndrome appear to respond best to which of the following therapeutic regimens?
 - Supportive care
 - Exchange transfusion
 - Peritoneal dialysis
 - Pentobarbital coma
- Which of the following laboratory determinations is a prognostic indicator of severity and ultimate survival:
 - Prothrombin time
 - Ammonia
 - Serum transaminase
 - Serum glucose
- All of the following are desired effects of pentobarbital except:
 - Reduction in intracranial pressure
 - Pinpoint slightly reactive pupils
 - Isoelectric ("flat") EEG
 - Systemic hypotension

October CME Quiz Answers

Following are the answers to the CME quiz that appeared in the October 1981 issue of THE JOURNAL: "Management of the Child with Status Asthmaticus," by James J. Laughlin, M.D., and Peter H. Scott, M.D.

- | | |
|------|-------|
| 1. d | 6. c |
| 2. a | 7. d |
| 3. b | 8. c |
| 4. d | 9. b |
| 5. d | 10. b |

Answer sheet for Quiz: (Reye Syndrome . . .)

- | | |
|------------|-------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c d |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b c d |

I wish to apply for one hour of category 1 AMA Continuing Medical Education credit through the I.U. School of Medicine. I have read the article and answered the quiz on the answer sheet above. I understand that my answer sheet will be graded confidentially, at no cost to me, and that notification of my successful completion of the quiz (80% of the questions answered correctly) will be directed to me for my application for the Physician's Recognition Award of the American Medical Association. I also understand that if I do not answer 80% of the questions correctly, I will not be advised of my score but the answers will be published in the next issue of THE JOURNAL for my information.

Name (please print or type)

Address

Identification number (found above your name on mailing label)

Signature

To be eligible for this month's quiz, send your completed, signed application before Jan. 10, 1982 to the address appearing at the top of this page.

Look-Alike and Sound-Alike Drug Names

BENJAMIN TEPLITSKY, R. PH.
Brooklyn, N.Y.

Look-alike and sound-alike drug names can be misinterpreted by a nurse reading doctors' orders or by a pharmacist compounding physicians' prescriptions. Such misunderstandings can result in the administration of a drug not intended by the prescriber. Awareness of such look-alike and sound-alike drug names can reduce potential errors.

	PARAMETHASONE	PARAMETHADIONE
<i>Category:</i>	Adrenal Cortical Steroid	Anticonvulsant
<i>Brand Name:</i>	Haldrone, Lilly	Paradione, Abbott
<i>Generic Name:</i>	Paramethasone Acetate . .	Paramethadione
<i>Dosage Forms:</i>	Tablets	Capsules, Solution

	OXYMETAZOLINE	OXYMETHOLONE
<i>Category:</i>	Topical Nasal Decongestant	Anabolic Hormone
<i>Brand Name:</i>	Afrin, Schering Duration, Plough	Adroyd, Parke, Davis Anadrol-50, Syntex
<i>Generic Name:</i>	Oxymetazoline HCl	Oxymetholone
<i>Dosage Forms:</i>	Nasal Spray, Nose Drops	Tablets



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DESCRIPTION: Methyltestosterone is 17 β -Hydroxy-17-Methylandrosta-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptorchidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric,

avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE**

REACTIONS: Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunichism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** R. B. Greenblatt, M.D.; R. Witherington, M.D.; I. B. Sipahioglu, M.D.; Hormones for Improved Sexuality in the Male and the Female Climacteric. *Drug Therapy*, Sept. 1976. **SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

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The Foundation is managed by a board of directors that comprises the members of the ISMS Executive Committee. At present, proceeds from the Foundation investments are awarded to THE JOURNAL to further the continuing medical education program.

Memorial contributions made to the Foundation in lieu of flowers will be acknowledged by the secretary in a letter to the family of the deceased.

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1981-1982

MEDICAL/DENTAL MEETINGS

NAME AND
GROUP CONTACT

ARRIVAL/
DEPARTURE TYPE

BOYNE HIGHLANDS Harbor Springs, MI

EMERGENCIES IN MEDICINE	1/10-1/15, '82
Dr. Robert Wilson	
TRI-STATE DENTAL	1/10-1/15, '82
Dr. Donald DeCenso	
OHIO VETERINARY MEDICAL ASSOC.	1/24-1/29, '82
Dr. George Norris	
FAMILY PRACTICE UP- DATE CONFERENCE	1/31-2/5, '82
Janet Johnson	
MICHIGAN OPTOMETRIC ASSOCIATION	2/14-2/19, '82
Dr. Phillip Irion	
BOYNE WINTER IMAGING SEMINAR	2/14-2/19, '82
Dr. Robert Bree	

BOYNE MOUNTAIN Boyne Falls, MI

MID-WINTER MEDICAL MEETING	1/24-1/29, '82
Dr. Michael Hughes	
MICHIGAN HEART ASSOCIATION	1/31-2/5, '82
Eleanor Peterson, R.N.	

BIG SKY OF MONTANA

AMERICAN ASSOCIA- TION OF DENTISTS	1/16-1/23	National
Morris Travel		
ACADEMY OF FAMILY PHYSICIANS	1/24-1/30	National
D.J. Breen, MD		
Hillsboro Clinic		
MONTANA PHYSICAL THERAPY ASSOC.	1/22-1/24	State
Diane C. Allen, LPT		
BIG SKY RADIOLOGY	2/1-2/6	National
Dr. Virgil B. Graves		
Dept. of Radiology		
Columbus Hospital		
MONTANA ACADEMY OF OPHTHALMOLOGY	2/11-2/14	Regional
Dr. Kenneth Younger		
MONTANA ACADEMY OF DERMATOLOGY	1/12-2/15	Regional
Dr. Ronald Orman		
CARDIOLOGY SEMINAR	2/13-2/20	National
Dr. Sidney Goldstein		
Head-Division of Cardiovascular Medicine		
Henry Ford Hospital		
TRI-STATE DENTAL/ MEDICAL	2/20-2/27	Regional
Hugh Henning, DDS		
TOPICS IN INTERNAL MEDICINE	2/23-2/28	National
Frances Burt		
ANESTHESIOLOGY SEMINAR	2/24-2/28	National
Mrs. Phyllis Sherburne		
Director of Educational Services		
Columbus Hospital		

OB/GYN SOCIETY	3/3-3/7	Regional
Dr. John Browne		
BIG SKY UROLOGICAL SOCIETY	3/4-3/7	National
Dr. Robert Towers		
WESTERN ORTHOPEDIC ASSOCIATION	3/5-3/7	Regional
James F. Schwarten, MD		
The Billings Clinic		
CONTINUING EDUCA- TION SEMINAR,	3/7-3/13	National
MEDICAL COLLEGE OF GEORGIA		
Morris Travel		
MONTANA SOCIETY OF DENTISTRY FOR CHILDREN	3/18-3/21	State
Dr. Thomas Wickliffe		
PULMONARY DISEASES COURSE	3/20-3/27	National
Terrie vanAllen		
Extended Programs In Medical Education		
"ACHA Hospital Liability and the Quality of Patient Care"	1/16-1/23, '82	National
Eugenia Shuller		
Am. College of Hospital Administrators		
AMERICAN LUNG ASSN. OF MONTANA	1/28-1/31 '82	State
Earl Thomas		

For specific information regarding meeting programs and speakers, call Mitzi Kehn at Big Sky of Montana (800-548-4486) or Donna Prested at Boyne Mountain (616) 549-2441, collect.

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OBITUARIES

George S. Row II, M.D.

Dr. Row, 77, an Osgood family physician and surgeon for 50 years, died Sept. 5 at his home.

He was a 1931 graduate of the University of Louisville School of Medicine.

Dr. Row was a former ISMA councilor (trustee) and a former Ripley County delegate. He was selected this year for the ISMA Fifty Year Club. He was a member of the International College of Surgeons and the American Academy of Family Physicians.

Robert A. Nason, M.D.

Dr. Nason, 72, a retired Garrett physician, died Dec. 21, 1980.

He was a 1935 graduate of Rush Medical College and served as an Air Force flight surgeon during World War II.

Dr. Nason was a member of the DeKalb County Medical Society.

Glenn Conway, M.D.

Dr. Conway, 81, a retired Indianapolis physician, died Nov. 5 in a local nursing home.

He was a 1925 graduate of Indiana University School of Medicine. He retired in 1976.

Dr. Conway was inducted into the ISMA Fifty Year Club in 1975.

Memorials

Indiana Medical Foundation

The Indiana Medical Foundation, Inc. was formed by the Indiana State Medical Association "for religious, charitable, scientific, literary or educational purposes." It provides financial assistance to support the educational mission of THE JOURNAL.

Contributions made to the Foundation are deductible by donors in accordance with the Internal Revenue Code. Gifts are deductible for Federal estate and gift tax purposes.

The Foundation is pleased to acknowledge the receipt of gifts in remembrance of the following individuals:

Marlow W. Manion, M.D.
H. E. Raffensperger
Hwei-Ya Chang Loh, M.D.
John Riley
Robert M. Hollowell
John Twyman
Albert M. Donato, M.D.
James Blackmore
Goethe Link, M.D.
Mrs. Beth Bowen

Pierre C. Talbert, M.D.

Dr. Talbert, 60, surgeon at the Caylor-Nickel Hospital in Bluffton since 1952, died Sept. 15 at St. Vincent Hospital, Indianapolis. He was chairman of the board of the Caylor-Nickel Medical Clinic staff at the time of his death.

He was a 1944 graduate of Indiana University School of Medicine. He served in the Army immediately following World War II.

Dr. Talbert, a past president of the Wells County Medical Society, was certified by the American Board of Surgery and was a Fellow of the American College of Surgeons.

Willoughby M. Barton, M.D.

Dr. Barton, 78, a retired Centerville physician, died Oct. 19 at Pinehurst Nursing Home, Centerville.

He was a 1929 graduate of Indiana University School of Medicine and was an Army veteran of World War II.

Dr. Barton practiced in Centerville until his retirement in 1979. He was a member of the ISMA Fifty Year Club and of the American Academy of Family Physicians.

Hurschell D. Kindell, M.D.

Dr. Kindell, 80, a retired New Richmond physician, died Oct. 2 in Culver Union Hospital, Crawfordsville.

He was a 1925 graduate of Indiana University School of Medicine. He served his internship with the U.S. Navy.

Dr. Kindell, a member of the ISMA Fifty Year Club, also was a member of the American Academy of Family Physicians. He retired in 1978 after serving as New Richmond's physician for 52 years.

Harry Sherster, M.D.

Dr. Sherster, 75, a retired Indianapolis physician, died Oct. 16 in Johnson County Memorial Hospital, Franklin.

He was a 1940 graduate of Indiana University School of Medicine.

Harold W. Mammen, M.D.

Dr. Mammen, 58, plant physician at the Indianapolis Chevrolet Division of General Motors Corp., died Oct. 31 in Johnson County Memorial Hospital, Franklin.

He was a 1949 graduate of the University of Louisville School of Medicine, and was an Army veteran of the Korean War.

Dr. Mammen, certified by the American Board of Preventive Medicine, was a member of the Industrial Medical Association, American College of Preventive Medicine and the American Academy of Occupational Medicine.

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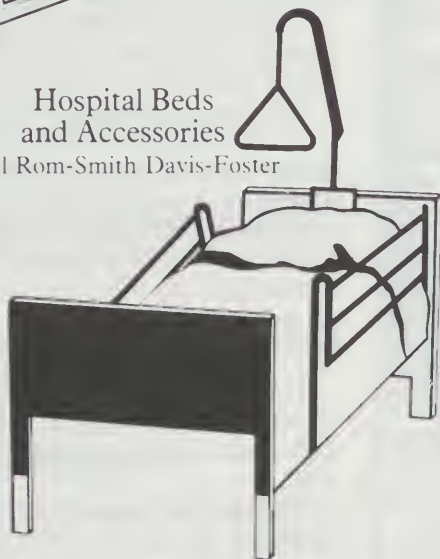


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ACEP Seminar in Arizona

Cardiopulmonary and cerebral resuscitation will be the subject of a three-day seminar on February 3 to 5, 1982 at the La Posada Resort in Scottsdale, Arizona. A distinguished national faculty will preside. Category 1 CME credit has been applied for.

The fee is \$250 for members of the American College of Emergency Physicians; \$275 for non-members except \$200 for physicians in training and \$200 for nurses. The Arizona Chapter of the American College of Emergency Physicians is sponsoring the seminar.

For further information write to the College at 810 W. Bethany Home Road, Phoenix, Ariz. 85013 or phone (602) 246-8901.

Polytomography of the Temporal Bone

A two-day symposium on Polytomography of the Temporal Bone will be given under the auspices of the Wright Institute of Otology at Community Hospital, Indianapolis, March 6 and 7.

The symposium meets the criteria for 12 AMA Category 1 credit hours. Fee for the course is \$300.

Direct inquiries to the Wright Institute of Otology, Inc., Community Hospital of Indianapolis, 1500 N. Ritter Ave., Indianapolis 46219. Tel: (317) 353-5679.

Suicide and the Family

A symposium on "Suicide and the Family" will be held at the Beverly Wilshire Hotel, Beverly Hills, Calif., Feb. 27.

Nationally renowned physicians will examine how suicide affects various nationalities. The meeting is sponsored by the Institute for Studies of Destructive Behaviors and the Suicide Prevention Center of Los Angeles.

For information, contact Nann Miller, 800 W. First St., Los Angeles, Calif. 90012. Tel: (213) 620-1215.

Colorado Ski and Learn Seminars

Three CME seminars dealing with management enrichment for the health professional will be conducted this winter in popular ski areas of Colorado.

The seminars, arranged by M.E.P., An Education Corporation, will be conducted by noted doctors and management specialists. They comply with IRS rules to make trip expenses deductible. The seminars are scheduled for Snowmass, Colo., during the weeks of Dec. 19 and March 20; and for Vail the week of Feb. 20.

For brochure and lodging information, contact M.E.P., 906 Cooper Ave., Glenwood Springs, Colo. 81601. Tel: (800) 525-3402.

Hawaii Sports Medicine Course

Northwestern University Center for Sports Medicine will sponsor a Sports Medicine Postgraduate Course to be conducted at Maui, Hawaii March 8-12. The course coincides with the Maui Marathon. It will carry 25 hours Category 1 CME credit.

Full information may be obtained by writing Bates Noble, M.D., 303 E. Chicago Ave., Room 2-163, Chicago 60611.

International Cancer Congress

The 13th International Cancer Congress will meet in Seattle, Washington Sept. 8-15, 1982. For program and registration info write Congress Operations Office, Fourth and Blanchard Bldg., Suite 1800, Seattle, Wash. 98121.

CME Meeting in Switzerland

"Advances in Diagnostic Imaging" is the subject of a medical meeting scheduled for March 21-28 at the Palace Hotel in St. Moritz, Switzerland.

The meeting, which carries 20 hours of Category 1 credit, is sponsored by the University of South Florida. Special air and ground packages are available to registrants.

Write to Edward A. Eikman, M.D., VA Hospital, 13000 N. 30th St., Tampa, Fla. 33612.

Clinical Cytopathology Program

The 23rd Postgraduate Institute for Pathologists in Clinical Cytopathology is to be given at Johns Hopkins University School of Medicine March 22 to April 2, 1982.

The program is designed for pathologists certified or qualified by the American Board of Pathology or its international equivalent. A loan set of slides will be sent to each participant for home-study during February and March. Credit hours are 125 in Category 1. Apply before Jan. 27, 1982.

Write to John K. Frost, M.D., 610 Pathology Bldg., Johns Hopkins Hospital, Baltimore 21205.

5-Day Lung Pathology Course

"Lung Pathology" will be the subject of a five-day comprehensive CME program sponsored by the American College of Chest Physicians at the Ramada The O'Hare Inn in Des Plaines, Illinois, March 29 to April 2.

It is accredited for 28 credit hours in Category 1. Tuition for ACCP members is \$550, for nonmember physicians \$600. For further info write to the College at 911 Busse Highway, Park Ridge, Ill. 60068.

Cancer Symposium in Texas

"Perspectives on Genes and the Molecular Biology of Cancer" is the topic of the 35th annual symposium on Fundamental Cancer Research to be held at the Shamrock Hilton Hotel, March 2 to 5, 1982. For full information write or phone Stephen C. Stuyck, M. D. Anderson Hospital and Tumor Institute, 6723 Bertner Ave., Houston, Texas 77030, (713) 792-3030.

San Diego State Seeking Applicants

Applications for August 1982 are now being accepted by the Graduate School of Public Health, San Diego State University from obstetricians and pediatricians interested in a career in the field of maternal and child health.

The training program lasts nine months.

Address inquiries to Helen M. Wallace, M.D., Division of Maternal and Child Health, Graduate School of Public Health, San Diego State University, San Diego, Calif. 92182.

International Cancer Symposium

The Fifth International Symposium on the Prevention and Detection of Cancer is scheduled to meet in Sao Paulo, Brazil, on May 16 to 20, 1982. CME credit hours will be arranged for U.S. participants.

For program, abstract forms and travel and accommodations information write to: Medical Congress Coordinators, 1212 Avenue of the Americas, New York, N.Y. 10036, or phone (212) 840-0110.

Five-Day Colorado Seminar

"Current Concepts in Pain Management" and "Current Concepts in Office Management, with Emphasis on 1981 Tax Law" will be the subjects of a seminar at Steamboat Springs, Colorado, Dec. 20-25, Feb. 14-19 and July 18-23. The programs are arranged to allow ample time for skiing or other activities.

For full particulars write to Current Concept Seminars, Inc., 9400 S. Dadeland Blvd., Suite 300, Miami, Fla. 33156, or call (305) 666-0401.

NIH Conference in Maryland

"Defined Diets and Childhood Hyperactivity" is the subject of a National Institutes of Health Consensus Development Conference to be held Jan. 13-15. The meeting will be in Masur Auditorium, Clinical Center, Building 10, Bethesda, Md.

For information write or call Bettygail Fulcher, Prospect Associates, 11325 Seven Locks Road, Suite 221, Potomac, Md. 20854, (301) 983-0535.

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NEWS NOTES

Satellite Practice Loan Guarantees

A program of loan guarantees to not-for-profit health care organizations interested in establishing primary care satellite practices in medically underserved communities has been announced by the Robert Wood Johnson Foundation.

Under the program, a local bank making a loan of up to \$250,000 at a rate below its prime rate would have to assume the risk for only 15% of the loan, and the borrowing group would assume another 25%. A guarantee for the remaining 60% of the loan would then be issued to the bank by the Mayo Foundation of Rochester, Minn., using funds provided by the Robert Wood Johnson Foundation as a reserve against default.

Applications for the loan guarantees will be made by the borrowing organization and a local bank of its choice. The first step for groups and banks interested in participating in the program is to contact the program director for detailed information. He is John M. Thoens, Primary Care Practice Loan Guarantee Program, the Robert Wood Johnson Foundation, P.O. Box 2316, Princeton, N.J. 08540.

AAFP Honors 25-Year Members

The American Academy of Family Physicians has honored the following ISMA physicians for having maintained AAFP membership for 25 years:

Dr. Marvin R. Davis, Columbus
Dr. Charles F. Deppe, Franklin
Dr. John S. Huoni, Jeffersonville
Dr. Burton E. Kintner, Elkhart
Dr. Willard S. Krabill, Goshen
Dr. Gene S. Pierce, New Albany
Dr. Wayne G. Pippenger, Frankfort
Dr. William D. Ritchie, Evansville
Dr. Malcolm O. Scamahorn, Pittsboro
Dr. Paul Siebenmorgen, Terre Haute
Dr. Joseph L. Steinem, Connersville

Sodium, Potassium Labeling

The American Dietetic Association (ADA) is actively supporting a bill in the U.S. House of Representatives which would require sodium and potassium labeling on processed and packaged foods. The Association, aside from its interest in the legislation, is urging public educational programs to heighten public awareness of the importance of proper levels of sodium and potassium intake.

ATLS Begins in Fort Wayne

Indiana's first Advanced Trauma Life Support Class (ATLS) was conducted in Fort Wayne in September. Twelve physicians from throughout Indiana attended the three-day course, according to Terrance P. McCaffrey, Northeastern Indiana EMS resource coordinator, and David Warnecke, R.N., course coordinator.

The ATLS course follows a curriculum prescribed by the American College of Surgeons. Dr. Paul V. Blusys, Northeastern Indiana EMS medical director, administered the activities.

VE Program Wins National Award

Indiana's Voluntary Effort program to help consumers save health care dollars has received an Honorable Mention Award in the National 1981 Clarion Awards contest of Women in Communications, Inc., a 9,000-member national communications group.

Recognized for design and implementation of the campaign were Barbara Lauter, former ISMA public relations director; Joanne S. Dring, vice-president/public affairs, Indiana Hospital Association; and Eileen Divine, Divine Design, Indianapolis. (Barbara Lauter is now director of communications with the American Society of Internal Medicine, Washington, D.C.)

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Here and There . . .

. . . **Dr. Jeffrey L. Cain**, an Elkhart obstetrician, discussed "Cesarean Childbirth" during a September meeting of the Elkhart Association of Cesarean Parents.

. . . **Dr. George H. Rawls**, an Indianapolis surgeon, has been appointed to the Medical Licensing Board of Indiana.

. . . **Dr. Louis "Jim" Callie**, a North Vernon internist, became interested in bicycling recently, completed a 645-mile bike ride from North Vernon to Baltimore this fall, and was the subject of a feature story, "Biking Bug," in an October issue of the *Columbus Republic*.

. . . **Dr. David H. Porter**, a Fort Wayne pediatrician, was the featured speaker at a recent workshop on Sudden Infant Death Syndrome.

. . . **Dr. Eldred H. MacDonell**, a South Bend internist, discussed "Prevention of Stroke and High Blood Pressure" at an October meeting of the Stroke Club of St. Joseph County.

. . . **Dr. William R. Hall**, a Fort Wayne anesthesiologist, has become president of Lutheran Hospital's medical staff; others elected were **Dr. Frederick O. Mackel**, president-elect; **Dr. William R. Clark, Jr.**, secretary; and **Dr. Joseph C. Muhler**, treasurer.

. . . Recent "wellness" seminars at LaPorte Hospital have been conducted by **Dr. Ernest W. Stiller, Jr.**, an orthopedic surgeon; **Dr. Peter R. Skafish**, a pediatrician; and **Dr. Charles F. Hagenow**, a family physician.

. . . **Dr. Jack E. Shields**, a Brownstown family physician, retired in September. He had practiced since 1940.

. . . **Dr. Charles R. French** of Terre Haute has been named a Fellow of the American Academy of Family Physicians.

. . . **Dr. Duncan M. Shields** of Chesterton, medical director at Bethlehem Steel's Burns Harbor plant since 1965, retired from practice in September. He has been succeeded at the Burns Harbor plant by **Dr. Louis E. Kimmel** of Valparaiso.

. . . Methodist Hospital's Life Line helicopter program completed its 1,000th emergency run in mid-October.

. . . **Dr. William E. Schoolfield**, an Orleans physician, retired from practice in October after 50 years of service in Orange County.

. . . **Dr. Laurence H. Bates** of Indianapolis discussed "Do We or Don't We Tell Patients the Truth" at an October meeting in Indianapolis of "Make Today Count," a support organization sponsored by the United Way Cancer Agency.

. . . **Dr. David R. Gettle**, formerly of Beech Grove, has become medical director of the emergency department at St. Joseph Memorial Hospital, Kokomo.

. . . **Diane Kitt, R.Ph., M.S.**, associate professor of clinical pharmacy, Purdue University, has been appointed to the USP Advisory Panel on Pharmacy Practice. The panel will advise on the USP Drug Information Division and the USP Committee on Revision.

. . . **Dr. Katharine L. Krol**, resident, Dept. of Radiology, Methodist Hospital of Indiana, presented a paper, "The Esophageal Survey in Upper Gastrointestinal Radiography," at the 11th annual scientific meeting of the Society of Gastrointestinal Radiologists in October. Co-authors were **Drs. Dean D. T. Maglinte** (senior author), **Lloyd Caudill**, **David Brown** and **William M. McDune**, all of Methodist Hospital.

. . . **Dr. Dean D. T. Maglinte**, Dept. of Radiology, Methodist Hospital of Indiana, was a faculty member during the 11th annual postgraduate course of the Society of Gastrointestinal Radiologists at Boca Raton, Fla., in October. He presented a workshop on "Radio-logic Evaluation of the Small Intestine by Enteroclysis."

. . . **Charles T. Hagel**, 34, a combat-wounded Vietnam veteran, has been chosen by President Reagan to be deputy administrator of veterans affairs. He joins VA Administrator **Robert P. Nimmo** in leading the government's third largest agency.

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NEWS NOTES

Leadership Conferences for FMGs

The American College of International Physicians is sponsoring a series of Leadership Development Conferences for Foreign Medical Graduates. The sessions are free of charge and all physicians are invited to attend. One of the conferences was held in Fredericksburg, Virginia Nov. 14 in conjunction with the meeting of the Virginia Association of Philippine Physicians. On Dec. 27 another conference will be conducted in Orlando, Florida during the Convention of the Islamic Medical Association of North America.

Child Passenger Safety Laws

Eight states now have laws requiring that children below a specified age be protected by federally approved restraint systems while being transported in motor vehicles.

The AMA has a formal position in support of state legislation dealing with child passenger safety. Data collected by the AMA show that Kansas, Michigan, Minnesota, New York, North Carolina, Rhode Island, Tennessee and West Virginia have child passenger protection laws. California and Maine have laws calling for public information programs to encourage seat restraints for children.

VA Hospital Care Clarified

Recent reports that the VA planned to deny medical care to eligible veterans based on an income test have been corrected by Robert Nimmo, Veterans Administration head.

Congress has mandated that non-service related conditions be treated only when the veteran is clearly unable to pay. Nimmo states: "Under today's budget constraints and the soaring costs of medical care, the VA cannot continue to provide full medical care to all veterans regardless of eligibility. Whatever steps we ultimately take to contain costs will be carefully designed to insure that no veteran with a service related condition nor any veteran in dire financial straits will be denied quality health care by the VA."

Patient Review of Medical Records

Physicians and hospitals across the country are beginning to make medical records available to patients without waiting for state "direct access" laws, reflecting the growing view that patients have a right to see personal information.

In at least 12 states, patients now have a legal right to see their hospital records. Patients in VA hospitals have had the right of access since passage of the Federal Privacy Act in 1974.

Among some physicians, skepticism seems to run high. They say patients will not understand what they read, that they may be frightened, that mistakes by hospital staff members will be disclosed, that charts are simply "worksheets" for medical personnel, and that reviewing records with patients is too time-consuming.

But studies show otherwise. At the Given Health Care Center in Burlington, Vt., for example, doctors reviewed medical records with more than 9,000 patients over an eight-year period, and 93% of the patients said they liked the idea.

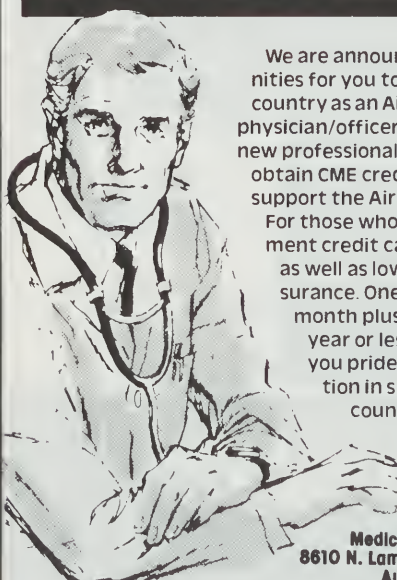
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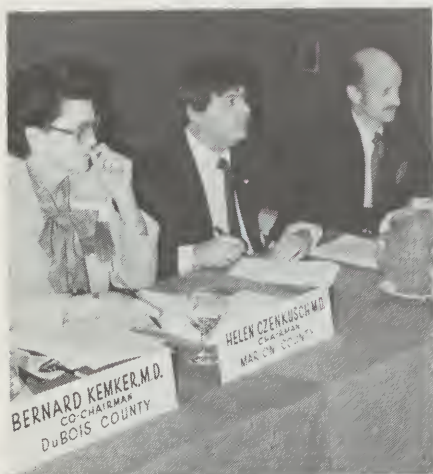
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Above, members of Reference Committee 5 listen to testimony.

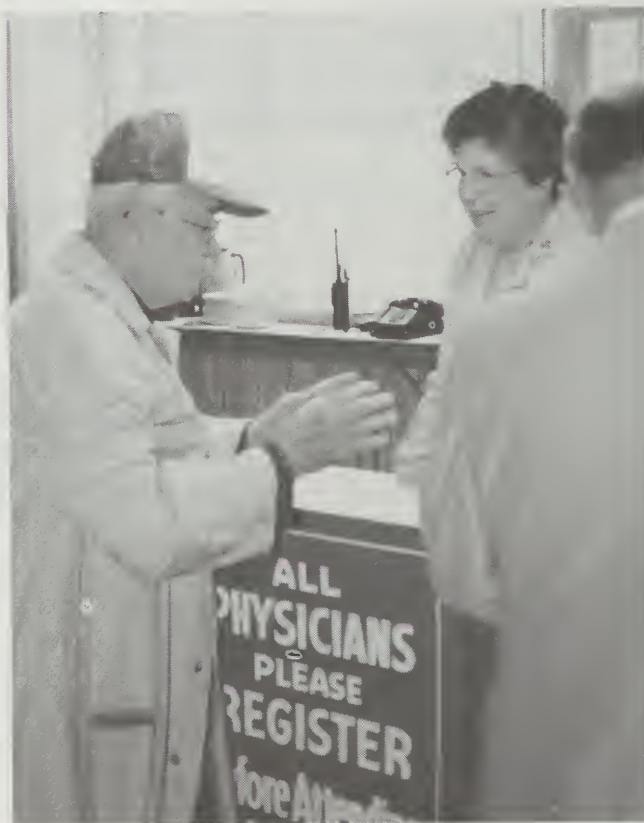
PHOTOS BY JOYCE WOLF

At right, Dr. Martin J. O'Neill addresses a meeting of the Board of Trustees.



Dr. Lawrence E. Allen, speaker of the House, and Dr. Shirley T. Khalouf, vice-speaker, listen as Dr. Alvin J. Haley presents his presidential address.

Dr. Joseph O. Flora of Indianapolis chats with Rosanna Iler at the Registration Desk.





Dr. Arvine G. Popplewell addresses members of Reference Committee 4, Medical Education and Insurance.



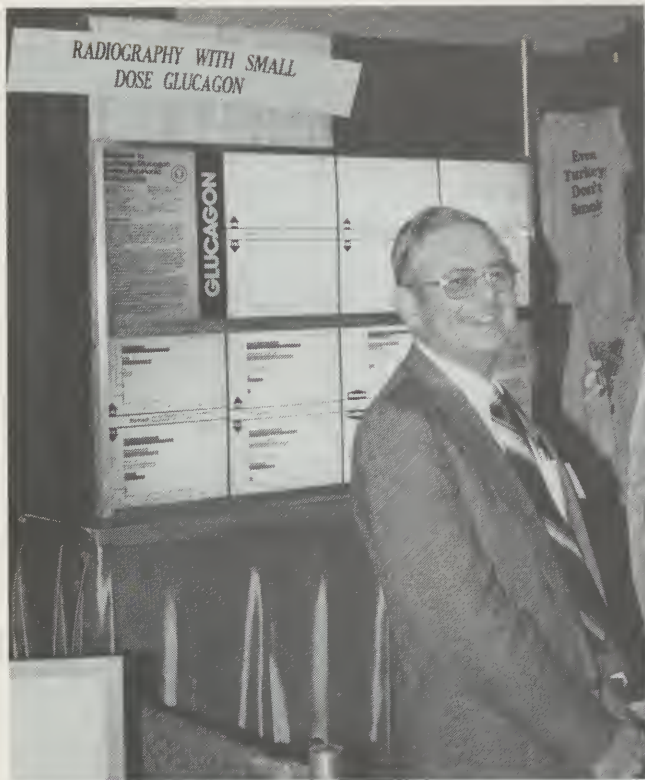
Scene during House of Delegates session.



This year's retiring trustees included Dr. Harold M. Manifold, Second District; Dr. John G. Pantzer, Seventh District; and Dr. Jack M. Walker, Eighth District.

William Vaughn, president of the I.U. School of Medicine Student Council, addresses the House of Delegates.





Dr. Stanley M. Chernish attends his scientific exhibit, "Radiography with Small Dose Glucagon."



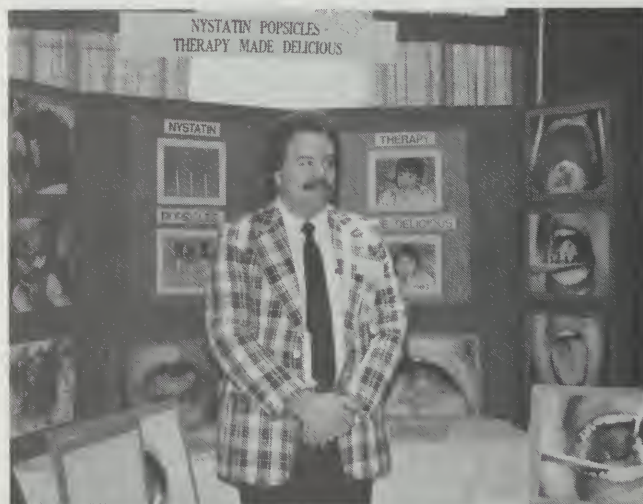
Dr. Laurence H. Bates is surrounded by his anti-smoking "Bates Buttons" and other paraphernalia.



An onlooker examines Dr. Robert W. Holden's exhibit, "Bronchial Artery Embolization of Control of Massive Hemoptysis."



This was the scene at one of several scientific meetings conducted during the convention.



Joseph M. Poland, D.D.S., attends his exhibit, "Nystatin Popsicles: Therapy Made Delicious."



Dr. Alvin J. Haley (center background), outgoing president, administers the oath of office to newly elected or re-elected ISMA officers.



Doctors Haley and O'Neill chuckle during a quip by Peter Hackes, NBC News Washington correspondent, guest speaker during the IMPAC luncheon.



Representatives of Indiana Physicians Life Insurance Company man an exhibit adjacent to the Registration Desk.



New members of the Fifty Year Club pose for a traditional picture, which this year included Miss Elsie Reid (far right), an ISMA staff member who marked 50 years of service with the ISMA in November.



Doctors Ted W. Grisell of Indianapolis and Robert P. Acher of Greensburg chat near the Registration Desk.



At left, Don Foy, ISMA executive director, escorts Miss Elsie Reid forward for presentation of a certificate of appreciation and for the reading of a resolution granting her honorary ISMA membership on the occasion of having completed 50 years as an ISMA staff member. The resolution, adopted by acclamation, was introduced by Dr. John W. Beeler. Miss Reid—"Elsie" to her countless friends—also was made an honorary member of the Fifty Year Club and an honorary Past President. In addition, the Association awarded her a two-week expenses-paid trip to Europe, which she will take in June.

At right, Dr. Alexander W. Cavins of Terre Haute chats with Dr. Frank Ramsey, editor of *THE JOURNAL*, during a luncheon meeting of the publication's Editorial Board and Consulting Editors. Dr. Cavins, senior consulting editor, began his association with *THE JOURNAL* in 1949.



Below, Marianna (Mrs. Glenn W.) Irwin, president of the ISMA Auxiliary, conducts a meeting with key members of the organization.





Scene during the annual Past Presidents' luncheon.



Dr. Otis R. Bowen, former governor of Indiana and now a Professor of Medicine at Indiana University School of Medicine, addresses the Section on Family Practice.



The second annual reception for medical students from Indiana University (above and below) featured refreshments and brief presentations dealing with the future of the medical profession and the benefits of belonging to organized medicine. On a personal level, it gave students an opportunity to chat first-hand with practicing physicians.



Dr. Lonnie R. Bristow (right) of San Pablo, Calif., president of the American Society of Internal Medicine, presents a plaque to Dr. James A. Cassady, president of the ISMA Section on Internal Medicine. Dr. Bristow was guest speaker for the ISIM meeting.





Dr. Robert M. Brown of Marion presented the Fifty Year Club's response during the President's Dinner.



President-elect Dr. Martin J. O'Neill presented a plaque in recognition of service to outgoing President Dr. Alvin J. Haley.



Dr. Haley introduced his wife Kay to the audience during the President's Dinner.

For the first time, a "Physician Spokesperson Workshop," organized by Bob Sullivan, ISMA public relations director, was offered and about two dozen physicians listened and traded ideas and questions with a media panel consisting of (right photo, from left) Dick Walton of *The Indianapolis Star*, Jane Harrington of Channel 13, Indianapolis, and Fred Heckman of WIBC radio, Indianapolis.



Below, Fred Heckman interviews Dr. Haley (left photo) and Dr. John A. Knot as a workshop exercise.



Dr. Jones Receives 1981 Physician Community Service Award

A Michigan City general practitioner, Dr. King S. Jones, was named recipient of ISMA's 1981 Physician Community Service Award during October's annual convention in Indianapolis.

Sponsored each year by A. H. Robbins Pharmaceutical Company in Richmond, Va., the award recognizes outstanding service to one's community in the public interest. Dr. Jones has spent more than 55 years practicing medicine with a genuine concern for improving the quality of life for his fellow man.

Dr. Jones is a 1925 graduate of Howard University School of Medicine. A native of Florida, he practiced briefly in Washington, D.C., then moved to Michigan City where he went into private practice.

At 83 he remains active in local and statewide civic affairs. He is president of the LaPorte County Medical Society and is a former president of the LaPorte County Board of Health. He has been a member of the Chamber of Commerce, and is a former president and member of the United Fund. He is a former president of the Michigan City Board of Health and also served as Health officer for that organization.

Dr. Jones, a life member of the N.A.A.C.P., is a member of the Elite Youth Center and the LaPorte County Council on Aging. He also is a board member of the YMCA, the Visiting Nurses Association, and the Bonding Board of Rogers High School.

He is one of the founders of the Elks Lodge No. 1091 and its first Exalted Ruler. He also is a member of the Lake Michigan F&AM Masonic Lodge #46 and a former board member of The Rotary International. Active in his church, Bethel, A.M.E., Dr. Jones serves as steward, chairman of the financial board and lay reader.

He is married to the former Grace Watkins. They have a son, Charles.



Dr. Jones (right) accepts recognition plaque from Dr. Haley during first session of the House of Delegates.

In accepting his award, Dr. Jones closed his remarks with the following poem, "The Bridge Builder."

*An old man traveling a lone highway
Came at the evening cold and gray
To a chasm vast and deep and wide,
Through which was flowing a sullen tide.
The old man crossed in the twilight dim;
The sullen stream held no fears for him.
But he turned when safe on the other side
And builded a bridge to span the tide.*

*"Old Man!" cried a fellow pilgrim near,
"You're wasting your time building here.
Your journey will end with the closing day;
You never again will pass this way.
You have crossed the chasm deep and wide;
Why build you this bridge at even tide?"*

*The builder lifted his old gray head.
"Good friend, in the path I have come," he said.
"There followith after me today
A youth whose feet must pass this way.
This stream which has been a naught to me,
To that fair haired youth may pitfall be.
He, too, must cross in the twilight dim.
Good friend, I am building this bridge for him."*

Five Hoosier Journalists Receive ISMA Awards

Five Indiana journalists have won ISMA 1981 Journalism Awards for Excellence in Health and Medical Reporting. The awards were presented during the annual convention.

Receiving awards were:

Print Category (Single Story): Brenda Batten of the *Indianapolis Business Journal*. Her award-winning article, "Glaucoma: 'A Sinister



Janice Chavers
Anderson Daily Bulletin



Brenda Batten
Indianapolis Business Journal

Condition,'" appeared in *The Indianapolis News* where she was health and medical reporter. A repeat winner, she received her first ISMA J-award in 1979 for a sensitive article about a dying cancer victim. Her "Glaucoma" story dealt with one woman's experience with glaucoma and expanded to explain the effects of the disease and the importance of early detection and continuing treatment. The article included the dates and locations of future glaucoma screenings, like the one that helped the story's subject discover her disease.

Print Category (Series): Janice Chavers, a feature writer with the *Anderson Daily Bulletin*. She is a recent graduate of Indiana University where she received an Ernie Pyle Scholarship from the School of Journalism and worked as science writer for the *Indiana Daily Student*. Her award-winning series dealt with heart disease—informing readers on the different types of heart disease, detection and treatment, rehabilitation, and preventive steps. The series also emphasized heart care available in the Anderson area. ISMA praised the series as being exceptional for its clarity and completeness and for the practical value it offered readers.

Radio Category: Tim Johnson, WTLC radio, Indianapolis. He was cited for a program that examined the alarming increase in use and addiction to drugs and alcohol and the frustration of mental health officials in securing funding for abuse treatment centers for juvenile users. Johnson spent several years as a medical technician certified by the National Registry and the Indiana Emergency Medical Services Commission.

Television Category: Carol Krause, reporter/anchor, WBBM-TV, Chicago, formerly a reporter/anchor with WISH-TV, Indianapolis; and Paul Brady, a senior photographer with WISH-TV. They were responsible for the half-hour documentary, "I'm Still Me," which also was honored by the Associated Press as "Best Documentary" and

"Best News Story of the Year." The sensitive, educational program on breast cancer was first aired in segments on the news and later revised and re-shown as a special half-hour program. It was the third time Ms. Krause has won the ISMA award in the television category.



Tim Johnson
WTLC, Indianapolis



Paul Brady
WISH-TV, Indianapolis

Call to Order, Miscellaneous Business

The 132nd annual convention of the Indiana State Medical Association was held at the Sheraton West Hotel, Indianapolis, Indiana. Scientific sessions on technological advances in medicine and continuing medical education courses highlighted the theme, "Indiana Physicians Lead the Way."

The House of Delegates convened at 7 p.m., EST, Friday, Oct. 23, 1981. The final session of the House of Delegates convened at 9 a.m., EST, Monday, Oct. 26, 1981. Presiding at both sessions was Dr. Lawrence E. Allen, speaker, assisted by Dr. Shirley T. Khalouf, vice speaker. Dr. Lloyd L. Hill, Peru, served as parliamentarian. Invocation was given by Rev. George S. Taggart, Anderson. Dr. Robert Brown, chairman of the Credentials Committee, reported a quorum for both sessions. Dr. George Underwood served as chief teller.

APPROVAL OF MINUTES

The proceedings of the 131st annual meeting of the House of Delegates, held at the Sheraton West Hotel, Indianapolis (October 17-20, 1980) and published in *THE JOURNAL* of the Indiana State Medical Association, December 1980, were approved.

ELECTION OF OFFICERS

Dr. Martin J. O'Neill, Valparaiso, as president-elect, succeeded to the office of president. Dr. John A. Knotte, Lafayette, was elected president-elect. Other elections included:

Treasurer—Dr. Douglas H. White, Indianapolis
Assistant Treasurer—Dr. George H. Rawls, Indianapolis

Speaker of the House—Dr. Lawrence E. Allen, Anderson

Vice Speaker of the House—Dr. Shirley T. Khalouf, Marion

Chairman, Board of Trustees—Dr. Paul Siebenmorgen, Terre Haute

Clerk/Chairman Pro Tem, Board of Trustees—Dr. Richard G. Huber, Bedford

Chairman and At Large Member, Executive Committee—Dr. Herbert C. Khalouf, Marion

At Large Member, Executive Committee—Dr. Jack Walker, Muncie

ELECTION OF DELEGATES, ALTERNATE DELEGATES TO THE AMA

The following were elected to two-year terms as delegates and alternate delegates to the American Medical Association, their terms to expire Dec. 31, 1983:

Delegates:

Dr. Peter R. Petrich, Attica

Dr. Marvin E. Priddy, Fort Wayne

Alternate Delegates:

Dr. Arvine G. Popplewell, Indianapolis

Dr. G. Beach Gattman, Elkhart

(Contingent upon favorable action by the AMA):

Delegate—Dr. Thomas C. Tyrrell, Hammond

Alternate Delegate—Dr. Vincent J. Santare, Munster

IN MEMORIAM

Tribute was extended to members of the Indiana State Medical Association who have died since the 1980 session:

Paul P. Bailey, M.D., Fort Wayne
David E. Blatt, M.D., Indianapolis
George E. Bowdoin, M.D., Fort Wayne
Martha L. C. Butler, M.D., Indianapolis
John C. Carroll, M.D., Decatur
J. Vernal Cassady, M.D., South Bend
Harry A. Cochran, M.D., Fort Wayne
Herman T. Combs, M.D., Evansville
Marion L. Connerley, M.D., Terre Haute
Matthew Cornacchione, M.D., Sarasota, Florida
Carl Culbertson, M.D., South Bend
Carl M. Davis, M.D., Valparaiso
John DeBrotta, M.D., Indianapolis
Robert L. Dilts, M.D., Indianapolis
Albert M. Donato, M.D., Indianapolis
Jordan H. Doran, M.D., Brownsburg
Edwin R. Eaton, M.D., Carmel
Cecil W. Ely, M.D., Louisville
Charles B. Emery, M.D., Bedford
August L. Fipp, M.D., Fort Wayne
Paul Flanagan, M.D., Indianapolis
M. B. Flanigan, M.D., Indianapolis
Richard A. Ganser, M.D., Mishawaka

Thomas A. Gehring, M.D., Crown Point
Charles M. Gingerick, M.D., Liberty Center
Wm. George Grosso, M.D., East Chicago
Louis P. Harshman, M.D., Frankfort
John S. Hash, M.D., Noblesville
Clarence Herzer, M.D., Evansville
William G. Hibbs, M.D., Franklin
Edgar J. Hunt, M.D., Terre Haute
Charles Hunter, M.D., Indianapolis
John R. Hurley, M.D., Daleville
William D. Inlow, M.D., Shelbyville
John W. Karn, M.D., South Bend
Herschell Kindell, M.D., Plymouth
Kenneth T. Knode, M.D., South Bend
James D. Kubley, M.D., Plymouth
Harter L. Leatherman, M.D., Indianapolis
Earl R. Leinbaeh, M.D., Hamlet
Goethe Link, M.D., Brooklyn
Heraeleo Matheu, M.D., Warsaw
Samuel T. Miller, M.D., Elkhart
Samuel Clark Millis, M.D., Crawfordsville
Robert G. Moore, M.D., Bicknell
Robert A. Nason, M.D., Garrett
Noel L. Neifert, M.D., Tell City

Raymond E. Nelson, M.D., South Bend
Wyndham H. Nutter, M.D., Rushville
George Overpeck, M.D., Muncie
Ertugrul Ozgen, M.D., Covington
James O. Price, M.D., Indianapolis
Willis Pugh, M.D., Evansville
Ben R. Ross, M.D., Bloomington
George Samuel Row, M.D., Osgood
Victor E. Schlossberg, M.D., Mishawaka
Burton J. Shapiro, M.D., Indianapolis
Ethan E. Shroek, M.D., Amboy
A. Wilson Smith, M.D., Columbus
Lowell C. Smith, M.D., Lafayette
Roy Lee Smith, M.D., Indianapolis
Wendell L. Spalding, M.D., Mishawaka
Pierre C. Talbert, M.D., Bluffton
Dan E. Talbott, M.D., Indianapolis
Richard W. Terrill, M.D., Fort Wayne
Fred A. Thomas, M.D., Indianapolis
Carl J. Trout, M.D., Lafayette
Dudley W. Turner, M.D., Gary
Joseph Weber, M.D., Centerpoint
Gordon B. Wilder, M.D., Anderson

Elections

ELECTED/REELECTED TRUSTEES, ALTERNATES—1981-82

District	Trustee	Alternate Trustee
1	John A. Bizal, M.D.	E. DeVerre Gourieux, M.D.
2	Ralph W. Stewart, M.D. (<i>elected</i>)	Paul J. Wenzler, M.D. (<i>elected</i>)
3	Richard G. Huber, M.D.	Eli Hallal, M.D.
4	Mark M. Bevers, M.D.	William E. Cooper, M.D.
5	Paul Siebenmorgen, M.D. (<i>reelected</i>)	Benny Ko, M.D.
6	Davis W. Ellis, M.D.	Clarence G. Clarkson, M.D. (<i>reelected</i>)
7	Donald C. McCallum, M.D.	John D. MacDougall, M.D.
7	H. Marshall Trusler, M.D. (<i>elected</i>)	Garry Bolinger, M.D. (<i>elected</i>)
8	Richard L. Reedy, M.D. (<i>elected</i>)	William C. VanNess II, M.D. (<i>elected</i>)
9	Max N. Hoffman, M.D. (<i>acceded</i>)	Lowell R. Stevens, M.D. (<i>acceded</i>)
10	Charles D. Egnatz, M.D.	Walfred A. Nelson, M.D.
11	Herbert C. Khalouf, M.D. (<i>reelected</i>)	Edward L. Langston, M.D.
12	Michael O. Mellinger, M.D. (<i>acceded</i>)	Thomas A. Felger, M.D. (<i>elected</i>)
13	Donald S. Chamberlain, M.D.	John W. Luce, M.D.

In accordance with ISMA Bylaws, Dr. Knote submitted his resignation as trustee from the Ninth District due to his recent election as president-elect of ISMA. (Individuals may not hold more than one major office during a given term and must resign from a major office if they attain a second.) With the adoption of Resolution 81-8, pertaining to an alternate trustee vacancy, the president of the District Medical Society,

Dr. Lowell R. Stephens, assumes the office of alternate trustee until such time as a new alternate trustee is elected. Dr. Max N. Hoffman, alternate trustee, Ninth District Medical Society, will accede to trusteeship. Due to the resignation of the Twelfth District trustee during 1981, Dr. Mellinger acceded to the position of trustee, Twelfth District.

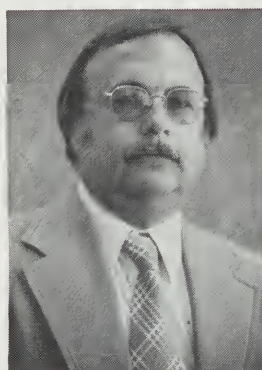
Dr. Knote Named President-Elect

Dr. John A. Knote of West Lafayette was chosen president-elect of the Indiana State Medical Association Oct. 26 during the final session of the 132nd Annual Convention in Indianapolis. He will take office as president in October 1982.

Dr. Knote, a board-certified radiologist who has a sub-specialty board certification in nuclear medicine, is a 1964 graduate of Indiana University School of Medicine. He served a rotating internship at Baptist Memorial Hospital in Memphis, Tenn., and his residency in general radiology at I.U. Medical Center.

He opened his practice in diagnostic radiology and nuclear medicine in Fort Wayne in 1968 and moved his practice to Lafayette in 1970. He is coordinator of the Nuclear Medicine Section at Home Hospital and is supervising radiologist at Purdue University Student Hospital.

Dr. Knote has been an ISMA trustee since 1976 and had served as chairman of the Board of



Trustees since October 1979. He has been a member of the ISMA Executive Committee the past two years. He is a past president of the Tippecanoe County Medical Society, the Ninth District Medical Society, and the Indiana Roentgen Society.

He and his wife Jan have three children: Andy, 14, Darcey, 11, and Charlie, 7.

Committees of the House

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(Marion County—District 7) FP
Willard Krabill, M.D., Goshen
(Elkhart County—District 13) PH
Larry Cole, M.D., Yorktown
(Delaware County—District 8) FP

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A. Alan Fischer, M.D., Indianapolis; Co-Chairman
(Marion County—District 7) FP
Alfred Cox, M.D., South Bend
(St. Joseph County—District 13) FP
Donald Dean Cofield, M.D., Bloomington
(Owen County—District 2) OPH
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(Howard County—District 11) FP
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(Vanderburgh County—District 1) FP

REFERENCE COMMITTEE NO. 5:

Miscellaneous

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AMA Matters

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(Allen County—District 12) FP
Richard Glendening, M.D., Logansport
(Cass County—District 11) FP
Russell Judd, M.D., Indianapolis
(Marion County—District 7) U

RULES AND ORDER OF BUSINESS

Richard Schaphorst, M.D., Chairman
Adrian Lanning, M.D.
Lec Trachtenberg, M.D.
Helen Czenkusch, M.D.
Robert Seibel, M.D.
Kenneth Ahler, M.D.

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Raymond H. Burnikel, M.D.
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House of Delegates—1981

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Nuclear Medicine—Robert W. Burt, Indianapolis

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Ophthalmology—
Otolaryngology, Head and Neck Surgery—
Orthopedic Surgery—
Pathology and Forensic Medicine—Garry L. Bolinger, Indianapolis
Pediatrics—Robert Parr, Indianapolis
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Surgery—
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7—John G. Pantzer, Indianapolis
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12—
13—John W. Luce, Michigan City

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Patrick J. V. Corcoran, Evansville
Peter R. Petrich, Attica
George T. Lukemeyer, Indianapolis
Malcolm O. Scamahorn, Pittsboro
Everett E. Bickers, Floyd Knobs

AMA ALTERNATE DELEGATES

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House of Delegates

DELEGATES

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CLAY (1)

Everett L. Conrad, Brazil

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H. O. Norton, Washington

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Gordon Fessler, Rising Sun

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Robert Acher, Greensburg

DE KALB (1)

Mark S. Souder, Auburn

DELAWARE-BLACKFORD (4)

Warren L. Bergwall, Muncie
Ross L. Egger, Daleville
Donald W. Hunsberger, Montpelier
L. Marshall Roch, Muncie

DU BOIS (1)

Bernard P. Kemker, Jasper

ELKHART (2)

G. Beach Gattman, Elkhart
Willard S. Krabill, Goshen

FAYETTE-FRANKLIN (2)

William F. Kerrigan, Connersville
Perry F. Seal, Brookville

ALTERNATES

Harold Zwick, Decatur

John E. Arford, Fort Wayne
Robert W. Dettmer, Fort Wayne
Richard L. Jontz, Fort Wayne
John T. Lucas, Fort Wayne
John C. Muhler, Fort Wayne
Thomas A. Shealy, Fort Wayne
Harry D. Tunnell, Fort Wayne

Kenneth D. Schneider, Columbus

Paul R. Honan, Lebanon

Edward L. Langston, Flora

Joseph A. Frederick, Logansport

David H. Jones, Charlestown

S. R. Farid, Brazil

Lee F. Dupler, Frankfort

Ivan T. Lindgren, Aurora

Gary Lee Sheeler, Auburn

Larry Cole, Yorktown
Serverino T. Sulit, Hartford City

Jeffery C. Rendel, Jasper

Burton E. Kintner, Elkhart
John B. Guttman, Wakarusa

Noli C. Guinigundo, Brookville
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House of Delegates

DELEGATES

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Atec Salvo, Williamsport

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Frederick Ridge, Linton

HAMILTON (1)

R. Adrian Lanning, Noblesville

HANCOCK (1)

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HARRISON-CRAWFORD (2)

Rashidul Islam, Corydon

HENDRICKS (1)

Lloyd Terry, Danville

HENRY (1)

George Moree, New Castle

HOWARD (2)

Jack W. Higgins, Kokomo
Jere D. Guin, Kokomo

HUNTINGTON (1)

Richard Wagner, Huntington

JACKSON (1)

Wes Whitley, Seymour

JASPER (1)

Kenneth J. Ahler, Rensselaer

JAY (1)

James S. Fitzpatrick, Portland

JEFFERSON-SWITZERLAND (2)

Ott McAtee, Madison
D. C. Valenzuela, Vevay

JENNINGS (1)

James Calli, Sr., North Vernon

JOHNSON (1)

Merrill M. Weseman, Franklin

KNOX (1)

Walter Roscoe Vaughn, Vincennes

KOSCIUSKO (1)

Wymond B. Wilson, Mentone

LA GRANGE (1)

John A. Eglin, Topeka

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Lowell R. Stephens, Covington
Carl Nelson, West Lebanon

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Thomas Walker, Brownsburg

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House of Delegates

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Lee Trachtenberg, Munster
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William Yocum, Merrillville
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John Luce, Michigan City

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James L. Mount, Bedford

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Garry L. Bolinger
William H. Beeson
Charles B. Carter
Edward M. Cockerill
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James E. Schroeder
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E. Paul Thomas
Morris E. Thomas
Virginia M. Wagner
Robert W. Mouser
Gerald C. Walthall

Lloyd L. Hill, Peru

Carl B. Howland, Crawfordsville

M. F. Guzman, Morocco

Robert C. Stone, Ligonier

House of Delegates

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Richard A. Schaphorst, Mishawaka
Kenneth L. Cline, Wyatt

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Marvin L. McClain, Scottsburg

SHELBY (1)

Wilson L. Dalton, Shelbyville

SPENCER (1)

Michael O. Monar, Rockport

STARKE (1)

Herbert C. Ufkes, North Judson

STEUBEN (1)

R. Wyatt Weaver, Angola

SULLIVAN (1)

Glen McClure, Sullivan

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George M. Underwood, Lafayette
W. R. Van DenBosh, Lafayette
Barbara J. Bourland, Lafayette

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William E. Weber, Jr., Bloomington
John Stearley, Gosport

Daniel J. Dwyer, Rockville

Joel I. Hull, Chesterton

John Crist, Mt. Vernon

Richard L. Veach, Bainbridge

Howard W. Koch, Winchester

Robert M. Sweeney, South Bend
Michael Conroy, South Bend
Lee Smith, Mishawaka
Richard Buck, South Bend

Jesus C. Bacala, Scottsburg

Floyd Thurston, Shelbyville

John C. Glackman, Rockport

Walter Fritz, Knox

Donald G. Mason, Angola

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Robert E. Hannemann, Lafayette
David Evans, Lafayette
Patrick R. O'Neil, Lafayette
Paul T. Maier, Lafayette

House of Delegates

DELEGATES

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Meredith B. Gossard, Tipton

VANDEBURGH (7)

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James A. Marvel, Evansville

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Robert Reed, Terre Haute

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C. Jules Heritier, Columbia City

Mark Offsinger, Indianapolis
Nick Hrisomalos, Indianapolis

Future Annual Conventions

1982—October 15-18, Indianapolis
1983—October 14-17, Evansville
1984—October 19-22, Indianapolis
1985—October 11-14, South Bend
1986—October 10-13, Indianapolis

ACTION:

1) Adopted resolution, Re: National Conference on Medical Costs, to be sent to the AMA.

2) Referred to the Indiana Delegation to the AMA and to the ISMA Board of Trustees that portion pertaining to delegate representation, structure and membership in the AMA organization.

3) Referred to the ISMA Board of Trustees that the ISMA Policy Manual be annually reviewed and updated.

4) Reminder of address/report filed.

Both time and words are inadequate to express the thanks I feel in my heart for the cooperation all of you have shown me in the past.

I want you to know the ISMA has a fantastic staff—well organized, well motivated, and well directed. The ISMA certainly gets its money's worth from its staff and from the able direction of Mr. Foy.

I also wish to thank all the members of ISMA who have served so faithfully on committees, commissions, Board of Trustees, as officers, etc.

I am grateful to the Allen County Medical Society for starting me, nurturing me, and supporting me and my efforts in medical politics for so many years. I am grateful to the Marion County Medical Society for adopting me.

I express sincere appreciation to three of my families: the Methodist Hospital Family Practice Residency, which tolerates my frequent absences and interruptions for the ISMA. And before that, my private practice in Fort Wayne—both partners and office staff—who supported me and tolerated my time away from private practice. Most importantly, I thank my personal family for tolerating my absence from them because of my involvement in medical politics.

When I first started in medicine, I decided that since I couldn't play golf anyway, I might as well spend my spare time in medical politics. However, by this time my family must surely think that had I only taken up golf, by this time I would be selling PennZoil like Arnie Palmer.

More seriously, I next would like to talk about several statements I've heard during the past few years:

"I can't tolerate that doctor's point of view." We are all familiar with optical illusions in which parallel lines do not seem parallel, or stair-step designs seem alternately to be viewed from above and then from below. We should realize that differences in geography, practice specialty, political parties, etc., create different attitudes. I feel we should attempt to see conditions from the vantage point of others; and failing that, at least tolerate others' points of view.

"Doctors can't agree on anything" or "Everyone has to agree before we can proceed." We must learn to move forward on projects that help a substantial portion of the ISMA membership even if a minority can't benefit from the project.

"We must have only dues-related income in order to control the ISMA staff." I am a member of several organizations with only dues-related income and I can assure you that the ISMA staff is far more responsive to ISMA membership than to some of these organizations with only dues income. I firmly believe that staff responsiveness is related more to membership input (for instance, committee attendance) than it is to the source of organization income.

"Doctors shouldn't be in business." All of us in private practice are in business. There is no reason why the ISMA cannot perform business activities in order to help our membership, especially doing the things no other organization can do—or that ISMA can do better, or that the ISMA can do less expensively.

"Differences of opinion between the ISMA districts are too great." I have found the average differences of opinion among ISMA districts do not vary as widely as individual opinions within a given district. Furthermore, we have adequate mechanisms to arrive at a consensus if we improve our attendance at meetings, such as committees, commissions, Board of Trustees, and the House of Delegates. In order to arrive at a true consensus, members must be informed first and then interested enough to attend meetings and express opinions.

"We don't meet the needs of young members." By 1990, nearly one-half of the physician population in the United States will have been trained in the previous decade. We must adjust our strategy and activities to meet the needs of younger members.

"We can't work with *them* because they are not our friends." The ISMA and its members must learn to work together with allies (not necessarily only with friends) toward common objectives and goals.

Next I would like to consider various problems and perhaps recommend specific actions:

The primary problem facing medicine today is the cost of medical care. The causes of increasing medical costs are numerous. Attempting to assess, place, or shift blame for these costs is non-productive. Both the politicians and the populace are calling for relief. The mood of the nation seems to be changing from "bigger is better" or "the most costly is the best" to more restrictive goals and diminished objectives. The Carter Administration suggested cap mechanisms which seemed non-productive and repugnant to us. Presently competition bills are before Congress, but they seem unwieldy, difficult to effect, and impossible to administer. Dr. Rubin of the HHS states that the Administration will come forth with plans in several months. I believe that now is the time for a national conference on health care costs, initiated by the White House, inviting medicine, labor, business, hospitals, and third parties to attend. I wonder if *all* are not willing to give a little to solve this problem. I think the AMA should initiate the call for

such a conference with the ISMA taking to the AMA a resolution such as this:

"Whereas, The preeminent problem in medicine is the cost of medical care; therefore be it

"Resolved, That the AMA initiate a call for a National Conference on Medical Costs which will be sponsored by the White House."

The ISMA must continue to support the Voluntary Effort. This was initiated by Dr. Goodman when he was president. The Voluntary Effort met its goals in 1979 but has had limited success in 1980 and 1981 so far. The Indiana Voluntary Effort has mounted two successful awareness programs: the public program and business and industry program. It is presently developing additional plans for slowing the acceleration of medical-care costs.

The ISMA has initiated a business-medicine coalition. The purpose of this coalition is to establish better communication between business and medicine. Business looks upon itself as a primary purchaser of medical care and is concerned about both quality and costs of medical care for its employees. The focus of the Indiana Business-Medicine Coalition is local, and a pilot project involving the Columbus, Indiana, area is presently underway.

Competition in medicine is affecting all of us. Our hospitals face competition. For-profit hospitals may soon be competing with our customary not-for-profit hospitals. The not-for-profit hospitals will want equal opportunity for return on equity and equal sharing in charity patients. We will want to be assured of proper and equal support of medical education and research costs.

Finally, as another cost control mechanism, the ISMA must consider some type of statewide peer review mechanism. A special task force appointed by me has recommended in the form of a foundation approach (ability to accept donations) a "Bureau of Medical Statistical Analysis." This House of Delegates will be asked to consider the foregoing concept during this meeting.

Insurance companies and private industry are now implementing hospital review programs. In Indiana most Medicare/Medicaid patients are reviewed by Indiana Blue Cross-Blue Shield. Iowa and West Virginia have peer review organizations established by their State Associations. Pennsylvania has a medical care foundation of its state association to review Medicaid patients. Kentucky, at its recent state medical meeting, acted to investigate and form a statewide peer review organization.

Such organizations do concurrent review: checking the appropriateness of hospitalization, making projections of length of stay, reviewing the length of stay, allocating continued stay by physician-advisor. The Board of Trustees has passed a resolution on to you, the House of Delegates. Their Resolution 81-32 is compatible with Resolution 81-19 from the 12th District:

Address/Report of the President

"Resolved, That the ISMA House of Delegates authorize the Board of Trustees to investigate the creation of a physician-controlled, statewide, peer review organization, and be it further

"Resolved, That the ISMA Board of Trustees is authorized to implement a pilot review project, if that course of action seems feasible; and be it further

"Resolved, That the Board of Trustees must report to the House of Delegates prior to expanding such a pilot project beyond the initial stage or before exceeding the fiscal note. (Fiscal Note: Upper limit of ISMA expense to be \$50,000 including one staff person, travel expenses, and routine office supplies, etc.)"

Next, I have an urgent request: I ask this House at this session to consider action by the Trustees to amend Paragraph H, Chapter I, of the present Bylaws, Re: Medical Student Members, by adding to the end of the first sentence after *to vote* "and hold office." To be counted as ISMA members for purposes of AMA delegate apportionment, the ISMA student member must be able to vote *and* hold office. Our present Bylaws already allow student vote, and I ask only for an additional amendment that would allow them "to hold office."

I am reminded that Max Parrott defeated Dick Wilbur for the presidency-elect of the AMA by one vote. I would like to have an additional delegate by June 1982 to better serve for the election of Lowell Steen as president-elect.

I recognize that Resolution 81-12 considers this problem. However, I would like to clarify the students as ISMA members with no change from their present political organization (Student Council of the I.U. School of Medicine) and without a dues structure. I feel that the problems of student organization and dues, if any, can be addressed at leisure. The proposed amendment changes nothing in our present structure except to

allow the medical student member to hold office.

Concerning the AMA organization, I have never been certain whether the AMA proposes to be an umbrella organization of medical specialties, specialty societies, or of medical specialists. In order to encourage medical specialties to urge their members to become AMA members and in order to encourage direct AMA members to become members of their state societies, and in order to encourage state societies to accept direct members, I propose that the ISMA Delegation consider a plan such as the following—that the AMA should count each full dues-paying member twice for the purposes of assigning delegate representation, counting once in the state organization and counting again (by member choice) his state or his specialty society. He could check off his preference just as he checks off his journal preference. A direct member of the AMA or a member who has his dues reduced for any reason would not have this option.

Medical specialty societies would be allocated an additional delegate for each 5,000 members so enumerated.

Again I wish the ISMA to consider this at the delegation level. The resolution might be stated:

"Resolved, That each full dues-paying member be assigned another vote in the specialty society of his choice; and be it further

"Resolved, That each specialty society be granted an additional delegate for each 5,000 members so enumerated."

Also, I would like the House to consider Resolution 81-28 from the Executive Committee, establishing a Student Loan Fund, from two different perspectives—1) a loan fund vs. 2) a scholarship fund. A scholarship fund would certainly be easier to administer. The changing economic climate may make the establishment of a scholarship fund more appropriate.

I am pleased to remind you that the Indiana Physicians Investment Company and the Indiana Physicians Life Insurance Company are now operative. The purpose of the life insurance company is to:

1) Offer appropriate life insurance coverage and other innovative plans for members, family of members, and employees of members. (Remember that the ISMA membership is getting younger and has more need for life insurance.)

2) Present an investment opportunity. (Here is something for us older members!)

3) Establish equity for the formation of a malpractice insurance company, if that should become necessary. Necessity may be established by unavailability of malpractice insurance or excessive costs from other carriers.

The entire malpractice issue is heating up again in Indiana. You may have read that a surcharge increase is planned for next year. The first recommendation called for a 40% (rather than the present 10%) surcharge. A legislative committee has subsequently recommended a 25% surcharge. Accordingly, Dr. O'Neill and I are appointing an ad hoc Malpractice Committee to investigate this problem and related malpractice insurance problems. This committee will make recommendations to you and the Board of Trustees.

Mr. Speaker, I encourage the House of Delegates, through the appropriate reference committee, to review the ISMA Policy Manual annually. I would hope that the House of Delegates would make suggestions about updating, changing, and improving the Policy Manual on a yearly basis.

And finally, Mr. Speaker, I again wish to thank all of you for making this an interesting, challenging, and exciting—but pleasant—year for me. Thank You.

ACTION: Filed.

Once again, thank you for giving me the privilege and honor of serving you in the role of president-elect, and soon, in the important position of president of the Indiana State Medical Association. I assure you I will vigorously attempt to continue in the productive manner of my predecessors.

In order to do this I have a list of objectives. They are:

1) **ANTICIPATE:** Look ahead. Not only for problems but opportunities. We must not always react but we must act positively. We must be knowledgeable about the external forces—political, economic and social—that are at work on our members and act to control these forces, as much as possible.

2) **ESTABLISH PRIORITIES:** We must decide what is important and *do it*. We must concentrate our resources on critical issues and win the battles that must be won. Since priorities change we must re-evaluate constantly and not waste time and money on lost issues.

3) **KNOW OUR ENEMY:** We can and must identify our enemy—and be sure the enemy isn't within ourselves, at times. We must understand public attitudes about our profession and understand government views toward physicians and their activities.

4) **PLAN STRATEGY:** We must carefully plan strategy for solving our problems and taking advantage of our opportunities. Staff can construct the strategy in detail and the elected leaders can spend their time in review and critique of the developed plans. Implementation, time limits and dollar costs must be considered and re-evaluation an on-going process. Once policy approval is obtained, tactical decisions should be delegated to selected staff members.

5) **DISCARD EXCESS BAGGAGE:** Once a strategy plan is developed it must be staffed to win. Our members must feel that our staff is more interested in winning battles for the Association than in providing jobs for themselves. We must keep the excellent professionals we have, but also have the means to supplement the staff with outside experts when the occasions arise. On the other hand, we must discard excess baggage, whether in terms of staff, projects, or programs when necessary.

6) **IMPROVE PROGRAMS:** This should be an on-going process of simplifying and perfecting programs so that members can be confronted with clear choices and not spend a lot of time defining the program, arguing over the facts, or collecting background material. This can be done by staff and be presented with a recommended solution on which a decision can be made.

7) **IMPLEMENT STRATEGY:** Plan the work, then work the plan. Implement. We want success in achieving our goals—not just the exercise of a process. If we find one strategy that is not productive, we will formulate and implement another until we have one that will win.

In order to accomplish these objectives there are three main ingredients: physicians,

finances, and leadership and staff capable of high grade performance and accomplishments.

1) **PHYSICIANS:** Physicians must be unified. We cannot afford the luxury of splinter groups fighting within our own family. Let us negotiate and resolve our differences privately and present a united front. We need more physician involvement and, consequently, will hold four regional meetings in November.

We are coming to you in your own areas to discuss the issues and problems as you see them and to have you help us find the "grass roots" leadership we need throughout the state to have a successful impact on our state and federal governments. It takes time and money to accomplish this and it may require a larger staff. More than that, it takes individual physician involvement. I cannot stress this too much because we are at the crossroads and the path we take—voluntarily or involuntarily—will determine our future: private enterprise, semi-private enterprise or a public utility.

In 1981 the nation's health care bill could total one-quarter of a trillion dollars—or about 10% of the gross national product. Factors contributing to these high costs are: new equipment and technology, which creates better but more costly health services; malpractice insurance totals about 6% of health care bills; health care delivery systems are inefficient, at present; and availability is overused, fueled by subsidized health insurance programs.

There were six bills introduced in the last Congress aimed at reducing the costs of health care. I remind you that three of these bills have been re-introduced this year: S. 139 Comprehensive Health Care Reform Act, by Sen. Hatch (R-Utah); S. 433 Health Incentives Reform Act, by Sen. Durenberger (R-Minn.); and HR 850 National Health Care Reform Act, by Rep. Gephardt (D-Mo). Also, Sect. Schweiker is promoting competition and prevention of disease and illness with his "wellness" program. He will present a legislative package to Congress probably by the end of the year or early next year. We must recognize that the *sources* of the pressure on us to reduce health care costs have multiplied and these are formidable.

The messages we need to deliver will be carried only by physicians and, therefore, it is essential we be unified, knowledgeable, and accessible. So, I ask you to attend your regional meeting and if you are on a committee or commission, please, attend.

2) **FINANCES:** The second ingredient is money. ISMA has these sources of income: dues, return on investments, and external sources.

There has been no dues increase since 1975. Whether the Exec. Committee can continue to present a balanced budget in the face of inflation is questionable, especially if we enlarge our scope of activity. We have to be realistic and anticipate a possible increase sometime in the near future.

The Exec. Committee in the past several years has made some wise investment policy decisions, including the employment of our investment counselor, and I feel we are getting a satisfactory return on our investments.

External sources of income are limited to a few programs, some of which carry little financial involvement and two that require substantial amounts of money. I will speak about them.

I-MEDIC was approved by the House of Delegates for definite reasons. Those reasons still exist despite the de-funding of PSRO. We have been in the data processing business for enough time to become very proficient and, with the development of an ISMA Statewide Review Authority and I-MEDIC handling the data processing, we will be able to recoup our losses and benefit financially.

The other subject is IPIC—Indiana Physicians Investment Company. After a series of problems, the company has been capitalized and IPLIC—Indiana Physicians Life Insurance Company—has started operations. You will be told more about this later. I mention it because I want your support for IPIC and IPLIC. Buy shares of stock in IPIC—any number you feel you can afford. It will, in the end, benefit you financially as well as ISMA.

3) The third ingredient is **LEADERSHIP** and **STAFF:** ISMA has an excellent executive director in Don Foy and under his tutelage an extraordinarily fine staff has developed. We are fortunate to have such capable people and as they gain more experience we can expect greater accomplishments.

I believe our elected leadership is as qualified and capable as any in the country and I know from my experience working with the officers, trustees and delegates that we have hard working, intelligent and articulate people, all striving to do a good job in the name of good medicine. As long as we have such dedicated people our future as physicians can be viewed with some degree of optimism.

I am looking forward to working with you in the coming year on all matters that will develop at this present meeting, plus all the issues that will arise during the year. I will make myself readily available in Indianapolis and, also, will attempt to visit, upon your request, any county society meeting that you feel I could be of any assistance.

Thank you for your attention.

ACTION: Filed.

It indeed makes one proud to see a physician such as Dr. Jones receive an award for his outstanding service to his patients and his community through the years. With many such ceremonies it always brings pride to see the service and dedication that the members of our profession have to it and to their patients. Likewise, it is my pleasure to congratulate Miss Reid on behalf of the American Medical Association for her many, many years of service to organized medicine, to the physicians of this State. It is only accidental and incidental that my service to the Indiana State Medical Association began on the Grievance Committee. In 1965 I was appointed by Guy Owsley, who was then president, and Miss Reid was the secretary and boss of that committee. She ran a tight ship then, and she has run a tight ship for ISMA as long as she has worked with the organization. My congratulations to you, Elsie, and I'll give you another kiss later!

It's been my pleasure for six years now to represent the AMA at this meeting—sometimes singularly and sometimes in conjunction with the president, or the president-elect, and this year I'm going to wing it by myself. The hour is late . . . there are many things I would like to say to you but I will attempt to abbreviate the message I want to bring to you tonight.

A year ago tonight I spoke to you about the importance of political activity, the importance of physicians being good citizens, the importance of you exercising your franchise to vote. I am happy to see that you did. Because of the landslide that occurred last November, not only for President Reagan but in the United States Senate, we have a different climate in which we operate today. We operate in a less hostile climate although I must warn you that when we must deal "hard ball" with our friends, it is oftentimes infinitely more difficult than dealing with our enemies.

And I must tell you that so far we have had an opportunity to meet twice with President Reagan, an hour each time. Our first meeting with him was last November at Blair House before he was in the White House. He is an attentive gentleman; he is an intelligent man; he has a grasp of the issues, and he understands from where we come as physicians in this country. He understands this for a very good reason. He understands full well that \$38 million was contributed to his campaign in dollars and in services by the physicians and their families in this country. Such dedication in terms of services and dollars demands attention and he indeed has given us his attention.

The President has given us assurances on many issues that concern you, me and every practicing physician in this country. Down the road, we are going to come to the point one of these days where we are going to have to part company. Now, I personally believe that the landslide victory last fall has probably bought for us another 10 years of prac-

tice as we know it today. I think that, because of cost constraints and cost problems, there will be some desire to tinker with the system in some way or another. The Administration has not brought forth a proposal so far because I don't think they have formalized what they want to do.

But there are dangers in many of the things that are afoot. Earlier you heard reference made to so-called pro-competition bills. And earlier you heard reference to the so-called consumer choice bills that are before the Congress. All of these bills are presented as cost-saving devices and anti-regulatory bills. I would call to your attention, however, that Congressman Gephardt's bill, which supposedly is pro-competition and anti-regulatory, speaks 56 times of the capacity of the Secretary of HHS to regulate this profession through the economic incentives that are presented in that bill.

Some of the things we asked the President to do when we met with him was to do one thing that has been AMA policy for as long as I have been an AMA member . . . that is to have a separate voice for health, preferably a separate department of health, or if at least not a separate department of health, a cabinet officer under the Secretary of HHS who has responsibility for health. We have his assurance that at the appropriate time, health and welfare will be separated and that Secretary Brandt will become an undersecretary for all matters relating to health, including the administration of the Medicare and Medicaid programs.

We have a problem coming, much more quickly than those problems will come, however, and that is the problem of the block grants which the Congress has already approved. Now we as a state medical association must take a strong hand in this because there are a lot of dollars involved and there are important programs involved, and there will have to be additional funds from the State of Indiana to support programs such as the Medicaid program. At the AMA we would like to see all those programs in the State Board of Health, administered by Dr. Blankenbaker and his associates. I'm not sure Ron really wants those programs, but I think we as an Association have an opportunity at this time to get those health-care dollars in the health department where they belong and out of the hands of the welfare people who for so long have been administering them. I think it gives us an opportunity as a state medical association to involve ourselves in some innovative relationships with that department in terms of the financing of health care for the Medicaid recipients. Now, I recognize when we skate along those icy waters that there is a danger of interference by the Federal Trade Commission. You know we did this sort of thing with the CHAMPUS program and it worked quite well for many, many years and I think there is an opportunity for us in this regard again.

Now let me move ahead and say just a few words about the American Medical As-

sociation—your Association which is also at this point in its history an extremely healthy organization. You probably all remember that in 1974 the AMA was borrowing a million dollars a month to stay in business. Today we have total assets in excess of \$108 million and this was made possible by that initial assessment of \$60 which 97.8% of the members did indeed pay. Your Association equity at this time is in excess of \$76.8 million and growing steadily. You will remember that the House of Delegates indicated that an 80% level of reserve to operating expense should exist and we are at this point ahead of projections and at 91% of the operating budget in terms of reserves. Like our State Medical Association, the investment counselors of the AMA have been very prudent; our surplus funds are drawing 17.75% interest and have for the last nine months, and we just put out \$8 million at 17 3/4% last week.

Membership likewise is growing and I urge all of you to go home and recruit members of the AMA because in numbers there is strength and in unity there is strength. We are now at a total force of 228,000 members. Someone indicated earlier the fastest growing segment in the Association is our Resident Physician Section and the Medical Students.

You've got a great group of delegates and alternate delegates representing you from Indiana. They are probably the most outstanding group in the House of Delegates and their accomplishments equal only such states as California that have 29 delegates versus our five. We are very fortunate because the only other state who has a member on the Council on Constitution and Bylaws, such as we have in Pete Petrich, is California—Ralph Milliken. The only other state who has a member on the Council on Medical Services, such as we do, Malcolm Scamahorn, is California. The only other state who has a member on the Council on Medical Education, such as we do, Pat Corcoran, is California. And the only other state with five delegates who has a member on the Board of Trustees, besides Indiana, is California with their 29 delegates.

Now as I look at the program for this meeting, it appears that there is only one political race in which there is any race at all. What I am going to say to you now I say to you with great sincerity and with great conviction. Some of you may interpret this comment in one way and others may choose to interpret it in another—it is in no way self-serving and has nothing to do with the fact that I am a candidate for high office next year at the AMA. My comment to you at this time grows out of an earnest desire that the State of Indiana continue to be represented by the finest delegation that it can be represented by and that we think carefully about what we do in this election. Therefore, let's all have our fun with politics and coalitions and smoky rooms and behind-the-scenes dealings and shenanigans which we all find so much fun and games, but let's this time look at each and every candidate in terms of what they can contribute to the

Address/Report of AMA Trustee

American Medical Association in behalf of the Indiana State Medical Association. Look at them in terms of their past service and in terms of their knowledge. Look at them in terms of how you would like to have them represent you in that august body. That's

what this is all about—their service to you in behalf of you.

Lastly, it has been my pleasure to serve you in a number of capacities and most importantly, the last six years as a member of the AMA Board of Trustees. I want to thank

you from the bottom of my heart for giving me this opportunity. I've given it my best shot. I hope I've represented you well. It has been great fun although hard work. Thank you very, very much.

Addresses of the Student Council Indiana University School of Medicine

**William Vaughn
President**

It is with pleasure that I stand before you to report on the I.U. School of Medicine. I thank the ISMA for giving us this opportunity.

I am speaking this evening as president of the student council, the official representative group of the 1,200 students of the medical school. This council consists of four officers from each class, the council officers chosen from this group, and representatives of student/faculty committees, national organizations, and state organizations such as the ISMA. The current student delegate to the ISMA is Tom Cartwright and working closely with him are Mark Noffzinger and Niek Hrisomalos. The school would like to thank you for providing support in sending our delegate to the AMA meetings. Tom reports to the student council concerning ISMA and AMA activities and issues and helps keep the medical school abreast of organized medicine.

Students at the I.U. School of Medicine are showing active involvement in organized medicine, serving as representatives to several national organizations and to committees of the ISMA. You have added to the awareness students have of organized medicine by providing membership to all I.U. medical students. In addition, the ISMA currently provides the state Journal to all seniors.

Since I talked with you last year there have been some changes at IUMC. The state legislature recently raised medical and dental student tuition by a whopping 65% as opposed to approximately 15% for all other students. This has posed quite a challenge for students already on tight budgets. Presently at I.U., 75% of students are using financial aid and the average indebtedness at graduation is about \$20,000. Compounding the problem has been a decrease in availability of health profession loans. Other loan programs also have tightened the pursestrings and made it much more difficult to obtain money.

Again this year for the second time the ISMA sponsored a student reception today and again I feel this was well received. This gives students the opportunity to talk with practicing physicians and administrators. In turn, they give us the realization that the end is reachable.

Our delegate Tom Cartwright has reported to the council the presentation of two resolutions before ISMA committees that pertain to students. Resolution 81-28 concerns the medical loan fund, and Resolution 81-12 the medical student society. It is exciting to know that you show such interest for the med students of this state. On behalf of the 1,200 students, I would like to express our

sincere gratitude.

In closing, I would like to thank Dr. Jim Carter for providing leadership to the student council and I want to thank the ISMA for allowing me to report this evening. I have seen in my four years an increase in interrelations between the students and the ISMA. With your continued assistance, we may continue to grow together.

Tom Cartwright Student Delegate

On behalf of the students of Indiana University's School of Medicine, I would like to thank you for providing a forum for us at this year's Annual State Medical Convention. I felt we had a good turnout this year at the Medical Student Reception with an estimated 75 or so medical students participating. This was the second time that a student reception has been held at the annual convention and we are hoping that you will continue this activity. It is an excellent opportunity for students to become familiar with organized medicine.

This year's convention was one of great interest to the students of Indiana University. There were two resolutions that dealt primarily with students:

Resolution 81-12 proposed the formation of a Medical Student Society. Although we recognize and appreciate the good intent of this resolution, we were uncertain that its intent would be achieved. Assuming that the intent is to increase medical student involvement in organized medicine, we felt that the dues proposed (\$18/yr) would be prohibitive to a significant number of students. Furthermore, if the Medical Student Society were composed of only a small proportion of our total enrollment, the ideas and actions of that group might not reflect those views held by the majority of medical students. Thus, during our testimony in front of Reference Committee #2, we proposed that the current bylaws remain unchanged with respect to who is eligible to be a member and

the process by which the student delegate and alternate delegate are elected. The only modification would be to change what is now referred to as the "student component society" to the newer terminology of "Medical Student Society." Additionally, we proposed that those students desiring the journal, the BCBS insurance and the newsletter be assessed the dues described. This resolution was discussed at length in the reference committee and they recommended that the resolution not be adopted. Again we are grateful for your continued concern and support for medical students, but we were very concerned that the proposed dues might be prohibitive to a significant number of students.

Resolution 81-28 proposed the establishment of a Medical Student Loan Fund. Reference Committee #4 heard extensive and very interesting testimony concerning the financial plight of today's medical student. Much to our delight the response of those members in attendance was one of genuine concern and enthusiastic support of such a program. Furthermore, the committee recommended that the program should be moved ahead into a more realistic time frame and that the ISMA seek other funds for capitalizing this loan fund.

We are very pleased with the outcome of both of these resolutions.

It was a privilege for me to serve as a member of Reference Committee #5. Working with Helen Czenkusch, R. Wyatt Weaver, James LaFollette, Wm. Earl Cooper and Bernard R. Kemker was a pleasure.

Speaking for the medical students of Indiana University, thank you again for your continued concern and support.

You have received a handout in your packet; however, I will make a few brief supplements to that. This report brings to completion the mandate which was given to the 1979 House of Delegates for the establishment of a for-profit life insurance company, Indiana Physicians Life Insurance Company. All of you should have received a letter from the insurance company introducing the first insurance product: group term life insurance.

We had, at this meeting, a booth manned by First Securities Corporation of Ohio, which was selected to sell the stock of the investment company. Their job at this time is to sell the 225,000 shares of stock to members of the ISMA and qualified related parties. The first 100,000 shares of that is to transfer \$2 million worth of stock, put up as

the initial capitalization by the Physicians Insurance Company of Ohio to ISMA members. Your fullest cooperation is needed to expedite this phase of the stock offering. To make an informed decision regarding your personal investment in IPIC, it is important that you contact either Al DuBose or Larry Stephens at IPIC Headquarters, (317) 925-2937, and discuss it fully.

Those of you who are interested in insurance in one form or another, be alert, because what has come out thus far in the mail is just the first of a number of types of policies that are going to be made available to the membership of this organization. That would also include the students who are members of this organization.

There are several innovative types of life

insurance that are being proposed at this point in time and are sold in some other areas but one of them I just want to mention since we were admonished that we do have a rule about smoking in this Assembly. In Ohio a life insurance policy is being sold to physicians who don't smoke. The policy has a premium of 25% less than comparable life insurance for people who do smoke. That's just an example of one kind of policy, and I am sure it will be introduced to Indiana physicians in the near future.

People who do have questions about this can certainly bring them up when this report is discussed at Reference Committee, and I'll be there to attempt to answer questions that anyone might have at that time.

Report of the Speaker of the House

Lawrence E. Allen, M.D.

Thank you, and in regard to your patient tolerance I will make my remarks brief and procedural. I would remind you that in accordance with our Bylaws, attendance at the reference committees shall be governed as follows:

Persons who are not members of the Indiana State Medical Association and seek to appear and present their technical or reference material to the reference committees must receive approval to appear on that specific subject from the reference committee chairman. Non-members must register as guests and the registrar and/or chairman should explain to the guests the appropriateness of excusing themselves from the reference committee hearing on completion of their committee testimony.

I would also remind you to check the current status of our Bylaws concerning amendments. And I have one item which I want to review with you concerning the amendment to the Constitution. As you may recall at the close of the 1980 House under Article VI, was the addition of Executive Director to the list of officers. This amendment is not eligible for approval at this House due to the fact that the amendment was not published twice in THE JOURNAL during the past year. The Chair must defer this item and would ask THE JOURNAL to give this matter specific attention the coming year.

Inquiries have been raised concerning the method of conducting the nomination and election of delegates and alternate delegates to the AMA. For the purpose of review, the Chair feels that it is appropriate to address the House on this matter. I have included a handout for your perusal and would review with you the fact that it has been our general custom in the past to recognize the expiring term of specific delegates or alternate delegates and to receive nominations and conduct

balloting for each specific position. Your speakers recognize that definite tradition and precedent in this practice in the past pro-

ceedings of this House and we are resolved to continue this procedure unless mandated to do otherwise by this House.

Proposed ISMA Constitution Amendment

The following proposed amendment to the Constitution of the Indiana State Medical Association is published in order to meet the requirements set forth in Article X (Amendments) of the Constitution:

"Article VI—Officers: The general officers of the Association shall be a president, president-elect, immediate past president, treasurer, assistant treasurer, speaker, vice-speaker, trustees, and the *executive director*."

(Article X of the ISMA Constitution states, "The House of Delegates may amend this Constitution at any convention provided the proposed amendment shall have been . . . published twice during the year in THE JOURNAL of the Association.")

ACTION: Filed

I am pleased to have the opportunity to bring you greetings on behalf of the Indiana State Medical Association Auxiliary and to wish you well on the occasion of your 132nd state convention.

Since the Auxiliary year runs from April to April, this date finds us exactly six months into our year. Hence this will not be a year's end report of accomplishments, but I will try to give you a review of our current status and activities.

I am happy to report that our statewide membership is growing! (An optimistic sign for the future!) We number over 2,700 members as of last June, an increase of over 400—with 42 active county auxiliaries. One new county, Wabash, joined our active ranks last year.

The AMA Auxiliary has over 81,000 members in 50 states. Last year they implemented over 6,687 different health projects in local communities.

Beginning more or less as a tea and crum-pet auxiliary to the medical society, we are seeing a change in the use the younger members are choosing to make of this vehicle. Realizing that one-third of the students currently enrolled in medical school are women, we are anticipating an even greater change in the years to come. Today our image reflects a responsiveness to and awareness of health needs at the local community level. Our best image maker is the number of varied health projects our 42 counties sponsor and participate in over the year. These range from CPR instruction in Allen County, to school immunization programs in Vigo County, to films on drug abuse in Vanderburgh, S.W., to child restraint education in Marion County, sponsorship of the Ronald McDonald House in almost all the counties, to "Let's Pretend Hospital" in Howard and Johnson Counties—a program where all kindergarten age children are toured through the emergency room of the local hospital, with explanations and hands on showing of stethoscopes, blood pressure equipment, examining rooms, etc. We show films on sexually transmitted diseases, sponsor and man bloodmobile drawings and are instrumental

in organizing several health fairs (Shelby and Marion Counties, for example). Our projects are myriad and ever changing.

In addition to our one national and state fund raising project, AMA-ERF, each county has its own health related philanthropy, such as nurses or allied health scholarships, local hospital support, or as in Ft. Wayne where the auxiliary is undertaking a large endeavor in sponsoring a live circus, the proceeds of which go to support the Three Rivers Health Center.

There are two areas of concern I have chosen to emphasize this year.

1. Public Relations—or I like to call it "Building Bridges." The medical family needs to be constantly aware of its public relations. We need to be aware of our relationships one to another. We need to build bridges of good will in our relationship of state to county, county to state—and both of those to national. And lastly, and perhaps the most important is the impression the world outside the medical family has of us, both as spouses and as M.D.'s. As spouses of physicians we have a unique opportunity to be informed and to articulate medicine's viewpoint. I personally feel this is one of the prime responsibilities we have as an auxiliary.

The second area I have chosen to emphasize is membership. The importance is obvious. There is strength in members. We are producing more young physicians per year than ever before in history. They make up the fastest growing segment of the AMA. We must involve them and listen to them. We are pleased to be able to recruit Resident/Intern wives directly into the auxiliary. National has instituted a new program where dues are a minimal \$3 and state has voted a \$2 stipend, so for a nominal \$5 these young spouses can be brought in at a vulnerable time and introduced to organized medicine. I have an able young auxilian, Mrs. Robert Whitmore, Kathy, Marion County, who is chairing the statewide R/I Committee. There are over 700 R/Is in the state. What a potential for building membership! I urge you to look at this recruitment as a viable option for you, also.

Kathy has contacted all of them and has

planned a meeting November 10, with Dr. Diane Brashear speaking on the auxiliary's topic of emphasis this year, "Managing Your Stress."

As a recruiting tool to introduce ISMA AND ISM—"double A" to our future practicing physicians, we feel direct membership during this short period serves an important role.

We welcome the closer working relationship the State Medical has extended the auxiliary. The State President sits with the ISMA Board of Trustees. I find this a tremendous help in parleying questions as I travel about the state on my county visits.

How many of your county societies extend this same privilege to your county auxiliary presidents?

We are pleased to have the State President asked to sit on the Indiana Medical Education Fund Committee, which is the committee which oversees the investment and disbursement of funds to the I.U. School of Medicine from AMA-ERF contributions. As you know, last year the auxiliary raised \$1.7 million nationally for AMA-ERF, with the I.U. School of Medicine for the second year in a row, receiving the largest single check distributed—\$55,556.

We are very pleased to be able to include our county presidents and legislative chairmen in the four area conferences you at the ISMA have planned for the month of November. These are to include a workshop and a presentation of concerns by staff followed by a social hour and dinner with local legislators in attendance. Our legislative chairmen have been chosen because of their interest in and knowledge of the legislative process. I hope you will find them an asset.

We would like to be partners in your pursuit of good medical practice. I have found doctors' spouses, as a group, to be highly motivated and intelligent. (You choose well!)

I would urge you to take advantage of a group that is perhaps not only the physician's best friend, but also an image maker for you and for medicine in your community. Keep your spouses informed and use us to medicine's advantage.

It is a thought long overdue!

ACTION: Referred to the Board of Trustees for implementation of the Reference Committee recommendation to increase the use of the Auxiliary in regard to legislative contact and communication regarding health matters.

The main substance of this year's ISMA Board of Trustees' actions has been reported to you throughout the year and summarized in my Chairman's Report to *THE JOURNAL* (September 1981, p. 624) and the Delegate's Handbook. My remarks here will concentrate on Board actions since the Chairman's Report was written and a short review of my two years as Chairman of the ISMA Board of Trustees.

1) After a special task force report on handling of utilization and peer review data by the ISMA, President Haley asked the Board to comment. Your Board of Trustees, though divided in its opinion, produced a majority vote favoring further study of the feasibility of ISMA acting as a central accumulation focus for utilization and peer review data gathered and produced by county medical societies or hospital staffs or by a combined effort of these two local units. The Board of Trustees at its September 13, 1981, meeting favored presentation of a resolution supporting this concept to the House of Delegates at this meeting. The objective of the Board of Trustees is to make the House of Delegates aware of the pressure currently exerted by government and large corporations for physicians to review much of the same data that the nearly defunct PSROs were formerly reviewing. Although current federal administration is implementing defunding PSROs, the reported objective of the President's advisors is to make certain that the utilization and peer review continues at no cost to the government. Private corporations have also become third-party carriers as more and more of them self-insure.

The "Feds" and the corporations currently seem to want physicians to do the review; however, insurance companies are very desirous of becoming designated reviewers. They can get paid for controlling their own costs and in essence for practicing medicine. You should be aware that at this time, one

third party carrier has its own utilization review, pilot program in place in more than 10 hospitals in our state, and it is logical to assume that they are gearing up to do review for the entire state. The majority of the Board of Trustees feel that ISMA should encourage and assist county medical societies and hospital staff to do their own review; however, some of the trustees feel strongly that we shouldn't be involved. This will be your decision. It looks like the government and corporations, the combination of which pays for a large part of the medical care in the United States, are going to demand review. The question is whether doctors, insurance companies, or lay groups chosen by corporations control utilization and peer review. The decision will be that of the House of Delegates after discussion at the reference committee.

2) The Board of Trustees is also recommending that the Student Loan Program be reinstituted. Reports from Indiana University Medical School officials indicate a current need for availability of student loans, and Resolution 81-28 will be introduced. This will require simply designating that the money now being diverted into the General Fund as a result of previous action by this House be directed into the Student Loan Fund at no increase in your dues.

3) Last year the House of Delegates requested close monitoring of I-MEDIC and a report to the 1981 annual meeting. Your Board is recommending that I-MEDIC be retained as a corporate entity and that I-MEDIC function as the administrator of the Blue Cross-Blue Shield insurance program for members of ISMA. This action is on the basis of legal and accounting advice to the effect that it will cost ISMA nothing further to retain this corporate structure and that there are projected possible tax advantages in the future. This concludes the presentation of major actions of the Board since the Chairman's Report was written.

A moment of your time, please, for acknowledgements. First, profound thanks to all who have served as trustees during my two years as Board Chairman. These men have been elected by you and they have done

a fantastic job. We've had differences of opinion, and long meetings, but our actions have been based on representing the members of our districts and the House of Delegates in the best interests of the Indiana State Medical Association. Second, ISMA officers and Executive Committee have been sources of leadership and security that have helped the Board to function as effectively as possible. Third, ISMA commissions . . . what an outstanding job they have done! A problem in this area, however, is poor attendance. This decreases representation from your districts. I would recommend appointment of alternate commission members which may help. That may take more restructuring than I am aware of at this point, but we do need to have additional input at those levels.

Two people I must single out. One is Dr. John MacDougall, chairman of the Medical Services Commission. You have heard the phrase, "When you say Bud, you've said it all." Well, if you've heard Mac give a commission report, you've heard it all. Thank you very much, John. And, the Legislative Commission, Dick Reedy, as chairman, have done an exemplary job. We welcome Dick to the Board of Trustees.

The ISMA staff is very likely the best in the United States. A mere thank you is all I can offer at this time, but words don't appropriately convey my gratitude for their help.

In closing I have a couple of suggestions. First, the responses to "Knoté's Notes" have been unbelievably positive. I wish to thank Barbara Lauter for helping us start it; Bob Sullivan for keeping it going; and my parents for having a name that goes along with the title. I hope that a report of Board actions will be maintained in the future. Second, legislative activity is the key to survival for our profession as we know it today. I think you all know that, but our duty is to spread the word. You as individuals, county and district societies, and your ISMA, must be willing to make sacrifices to get our message to the public and to the legislators. Please commit more of your time and effort to this objective. Thank you.

Status of Items Referred to Board of Trustees by the 1980 House of Delegates

Resolution 79-10

Subject: Establishment of an ISMA Section on Nuclear Medicine.
Action: 1980 House adopted with appropriate additions to the By-laws.

Resolution 80-1

Subject: Equitable Risk Classification in Medical Liability Premiums.
Action: Referred to the Commission on Medical Services. Commission recommended that ISMA Board adopt the philosophy of this resolution as ISMA policy.

Resolution 80-2

Subject: Certificate of need.
Asked that S.B. 267 be rescinded since it is not in the best interest of continued high quality medical care.
Action: Referred to Commission on Legislation who have requested that ISMA and its representatives in the annual trip to Washington, D. C., in April support the AMA and the Reagan Administration in efforts to delete funding for such programs as relate to S.B. 267.

Resolution 80-3

Subject: Local Continuing Medical Education.
Action: Commission on Medical Education supports resolution and will, as always, grant Category I CME Accreditation when requirements are met.

Resolution 80-4

Subject: ISMA District and Staff Reorganization.
Action: Resolution referred to the Administrative Staff with an

Status of Items . . .

amended resolve that additional field representation be added to ISMA staff. The matter is currently being considered.

Resolution 80-5

Subject: Blue Shield Claims Errors.
Action: Referred to the Commission on Medical Services. The Commission concluded that mechanisms already exist for handling.

Resolution 80-6 (Deleted—not considered)

Resolution 80-7

Subject: Voting Privileges for Section Delegates.
Action: Not adopted—but referred to Commission on Convention Arrangements to encourage participation by specialty groups in business and educational aspects of the annual meeting. Chairman of Commission has so communicated with all state specialty groups and sections.
Also referred to Commission on Constitution and bylaws. Commission has incorporated criteria into revised Chapter IV of the Constitution and Bylaws.

Resolution 80-8 (Withdrawn by sponsor)

Resolution 80-9 (Not adopted)

Resolution 80-10

Subject: Report on Status of I-MEDIC
Action: Reports on I-MEDIC's status are scheduled for quarterly meetings of the Board of Trustees and this is being done.

Resolution 80-11

Subject: Fireworks
Action: Referred to the Commission on Medical Services. The Commission agreed with the resolution's recommendation to establish a statewide reporting system for fireworks injuries, utilizing a survey of emergency rooms to gain data. ISMA Auxiliary has been requested to do this survey.

Resolution 80-12

Subject: Tumor Registry.
Action: Referred to Commission on Medical Services, which recommended that at the appropriate time, the ISMA support the efforts of the Indiana State

Board of Health in establishing a statewide cancer reporting system. The ISMA Board concurred.

Resolution 80-13

Subject: Cancer Insurance.
Action: Referred to Commission on Medical Services. The Commission will recommend to the ISMA Board that ISMA publicize the inadequacies of cancer insurance through any means available, including ISMA Reports, THE JOURNAL, news releases and patient pamphlets. Additionally the Commission is recommending that Dr. Richard Huber be invited to write a Journal article.

Resolution 80-14

Subject: Retroactive Denial of Insurance Claims.
Action: Referred to Commission on Medical Services. The Commission agreed that insurance carriers should not attempt to "second guess" the medical judgment of an attending physician and will recommend to the ISMA Board that they attempt to influence physician members of the Blue Shield Board to delete this authority from Blue Shield contracts. The Commission will also recommend that ISMA members be advised of the problem via the Newsletter. Members should be encouraged to educate their patients regarding this issue.

Resolution 80-15

Subject: JCAH Effect on Private Psychiatric Care.
Action: Implemented by the Indiana Delegation to the AMA through introduction of a resolution to the AMA House.

Resolution 80-16

Subject: Critique and Recommendations Arising from Recent Accreditation Process.
Action: Implemented by the Indiana Delegation to the AMA through introduction of a resolution to the AMA House.

Resolution 80-17

Subject: Premarital Laboratory Testing.
Action: Referred to the Commission on Legislation. Legislation introduced which will delete most undesirable features from the legislation passed in the 1979-80 legislation.

Resolution 80-18

Subject: Providing THE JOURNAL to Dues Exempt Members at Senior Member Subscription Rates.
Action: Implemented by the Commission on Constitution and Bylaws.

Address of President-elect

Subject: (I) Constitution and Bylaws be screened for contradictions.
Action: Commission on Constitution and Bylaws is in the process of recodifying.
Subject: (II) Field staff be expanded when financially possible; I-MEDIC financial status be monitored by Board of Trustees; clarifying letter be sent to ISMA membership pointing out extent of financial investment in Indiana Physicians Insurance Company (IPIC) and that ISMA continue to send leadership to negotiation seminars and conduct seminars for county society officers and membership at large.
Action: Referred to Administrative Staff. All recommendations are being accomplished with exception of conduct of negotiation seminars for county society officers and membership at large.
Subject: (III) Requested that AMA Delegation ask the AMA House of Delegates to reinstitute the moratorium on specialty society voting membership.
Action: AMA lifted the moratorium in July, 1980. No action as yet by the Delegation to reinstitute.
Subject: (IV) Recommends support of prompt promulgation of appropriate regulations supportive of the Medical Practice Act; support of state funding of an administrative assistant and a legal assistant for the Board of Medical Licensure.
Action: Referred to the Commission on Legislation.
The ISMA staff met with the Medical Licensing Board in December, 1980 and discussed with them various changes required to implement effective rules and regulations. The Medical Licensing Board took the comments provided and incorporated them into rules and regulations and forwarded that information to the Attorney General for appropriate action.
ISMA staff also met with the Medical Licensing Board Ex-

Status of Items . . .

ecutive Director and reviewed their current fiscal situation as well as administrative manning tables for the Medical Licensing Board. ISMA Legislation Commission's representatives testified in favor of the Sunset Committee's recommendations for reorganization of the Medical Licensing Board personnel manning table. Under the new legislative proposal, the Medical Licensing Board will have additional legal representation from the Attorney General's office in the Consumer Protection Division as well as direct legal assistance from the Attorney General's office, separate and distinct from the Consumer Protection Division during administrative hearings.

Subject: (V) ISMA conduct an educational program on HMO's for members and public concerning, among other items, possible changes in patient-physician relationships; that

ISMA urge its members to use physician extenders properly and further point out that physician extenders are not trained for independent practice.

Action: Referred to the Commission of Public Relations, which recommended that the new publication "Heartbeat" directed to legislators and the media serve as a vehicle to educate the public and membership on HMO's, IPA and physician extenders.

Subject: (VI) Remind HSA's that they are charged with not only cost consciousness, but with quality and access to medical care, including education and research in addition to patient care; that ISMA participate in determining the needs and desires of physician coverage in Indiana; that health care facilities emphasize nursing as applied to patient care vis-a-vis nursing administration.

Action: Referred to Commission on Medical Services. Regarding

physician supply the Commission recommended that the ISMA should attempt to become the central source of physician supply/distribution information. The Commission recommended that the Indiana Hospital Association consider four specific areas in increasing direct patient care by nurses. In considering HSA responsibilities the Commission reviewed legal counsel's research regarding their statutory authority. The Commission expressed concern that HSA's may be over-emphasizing cost containment while neglecting their other responsibilities as set forth in the President-elect's report. The Board adopted all of the Commission recommendations with the additional recommendation that Board members encourage physician participation in HSA's from county medical societies to represent organized medicine's philosophy.

Fifty-Year Club—1981

ALLEN COUNTY

A. Paul Hattendorf, Fort Wayne
Carl F. Moats, Fort Wayne
Edward M. Sirlin, Fort Wayne

BARTHOLOMEW-BROWN COUNTY

Marvin E. Hawes, Columbus

BOONE COUNTY

Clarence C. Kern, Lebanon
Alvin D. Schaaf, Jamestown

DE KALB COUNTY

Harry W. Covell, Auburn

DELAWARE-BLACKFORD COUNTY

Gerald S. Young, Muncie

FAYETTE-FRANKLIN COUNTY

Francis B. Mountain, Port St. Lucie, Florida, formerly Connersville

GRANT COUNTY

Robert M. Brown, Marion
Everett C. Taylor, Upland

GREENE COUNTY

Carl M. Porter, Jasonville
Samuel I. Rotman, Jasonville

JEFFERSON-SWITZERLAND COUNTY

Anna L. Goss Turner, Madison

LA GRANGE COUNTY

Harley F. Flannigan, La Grange

LAKE COUNTY

Leo K. Cooper, Griffith
Henry W. Eggers, Munster

MARION COUNTY

Frances T. Brown, Indianapolis
Matthew Cornacchione, Sarasota, Florida
formerly Indianapolis (deceased)
Clyde G. Culbertson, Nashville
Jacob E. Gillespie, Indianapolis
Bennett Kraft, Sarasota, Florida
formerly Indianapolis
Emmett B. Lamb, Indianapolis
Glen C. Lord, Indianapolis
John F. Parker, Indianapolis
Arthur B. Richter, Indianapolis

MIAMI COUNTY

Samuel J. Ferrara, Peru

OWEN-MONROE COUNTY

Dillon D. Geiger, Bloomington
William J. Stangle, Bloomington

RIPLEY COUNTY

George S. Row, Osgood*

RUSH COUNTY

Donald I. Dean, Sarasota, Florida
formerly Rushville

ST. JOSEPH COUNTY

John E. Luzadder, Michigan City

TIPPECANOE COUNTY

Paul H. Schmiedicke, West Lafayette

TIPTON COUNTY

Boyd A. Burkhardt, Tipton

VANDEBURGH COUNTY

Chris W. Cullnane, Evansville
Herbert S. Dieckman, Evansville
Joseph D. McDonald, Evansville
Mell B. Welborn, Evansville

VIGO COUNTY

Donald A. Gerrish, Terre Haute

WELLS COUNTY

August J. Dian, Bluffton

*Deceased

Report of the Executive Director

Donald F. Foy

ACTION:

1) Referred to the Board of Trustees: That a study be done in conjunction with the Indiana University School of Medicine con-

cerning future needs and distribution of physicians in Indiana.

2) Remainder of report filed.

The Executive Director's annual report was published in the September 1981 issue of THE JOURNAL, pages 618-619.

Report of Executive Committee

Herbert C. Khalouf, M.D., Chairman

ACTION: Filed.

It has been my privilege to serve as an at large member and chairman of your ISMA Executive Committee. For this I am grateful to you and to the Board of Trustees.

It has been a busy year for the Executive Committee. We started the year with a sizable projected budget deficit. With the very able help of our executive director and staff, this deficit has been markedly reduced. It is our expectation that the budget will be balanced

at the end of the fiscal year. Our budget for next year includes an expected surplus.

The Executive Committee acted on many routine and usual matters. Along with the Board of Trustees, we helped formulate advice for the IPIC and I-MEDIC boards.

In April we made our annual Washington trip to visit our Indiana congressional delegation. We also visited with and were briefed by the AMA headquarters staff and the Chamber of Commerce Washington staff. We

made visits to some of the people in the administration. It was most encouraging and gratifying to note the changes in attitude and philosophy that have occurred since last year. These changes, especially with things such as the planned block grants to the states, will present new challenges and responsibilities to organized medicine.

It is our intention to do our utmost to be ready for these responsibilities and challenges.

Report of the Treasurer

Douglas H. White, M.D.

ACTION: Referred for audit

An unaudited report of receipts and expenditures and the state of funds on hand at

Sept. 30, 1981, was included in the House of Delegates packets.

Reports of Trustees

ACTION: All Trustee Reports Filed

First District

Approximately 165 physicians, spouses, and guests attended the First District annual meeting held at the Evansville Country Club on May 21. Following a cocktail hour generously supplied by Mead Johnson & Company and dinner, the group heard several reports during the brief business meeting by: Dr. William Wells, First District president; Dr. Alvin Haley, ISMA president; Dr. John Knote, chairman of the Board of Trustees; Dr. Bryant Bloss, District Legislation Commission representative; Dr. Patrick Corcoran, AMA delegate; and Dr. Gilbert Wilhelmus, AMA alternate delegate. Officers were then elected: Dr. John Pulcini, president; Dr. Steven Elliott, vice-president; and Dr. Kent McKinney, secretary-treasurer. Appreciation was expressed to the VCMS for organization of the meeting. The meeting concluded with an excellent program by artist Jerry Baum, who demonstrated the art of watercolor painting.

Special guests in attendance were: Dr. Lawrence Allen, speaker of the House; Dr.

Shirley Khalouf, vice-speaker; Dr. Everett Bickers, AMA delegate; ISMA Executive Director Don Foy and Field Services Coordinator Sara Klein; Blue Cross-Blue Shield representatives Steve Tope and Beverly McGraw; and Tom Miller and Bill Maddox of Mead Johnson and Company.

Earlier that day, the Sixth Annual Bob Acre Memorial Golf Tournament was held at the Evansville Country Club. Winners were Dr. John Tisserand for Low Gross and Dr. Donald Graber for Low Net.

Concern about the health implications of proposed synfuel plants to be built in neighboring Kentucky counties has precipitated the formation of a study committee by the VCMS. The area is facing the realization of becoming "Power Alley," the label being applied to the Ohio River Valley as a result of existing and proposed nuclear and synfuel development.

Alternatives to PSRO and health planning are being examined with the decrease or elimination of federal funding for existing agencies and the disbanding of the local PSRO, called the Southwestern Indiana

Medical Review Organization. Disbandment was voted by the PSRO board in June.

The development of an IPA/HMO under the name of Tri-State Healthcare, Inc. by the Vanderburgh Foundation for Medical Care, Inc. was put on hold in February. At that time there was felt to be no push from competition, industry or the medical profession. Dubois County requested a transfer from the Third to the First District. We support their transfer.

A proposal will be evaluated to consider a minimal increase in the First District dues to cover the cost of the annual meeting.

Evansville will be the site for the 1983 ISMA Convention in the completely remodeled Executive Inn located downtown. Sufficient meeting space and lodging will be available in addition to the use of a new riverboat.

There were 402 ISMA members in the First District as of Dec. 31, 1980. 82% of the total ISMA membership in First District also belong to AMA.

**John A. Bizal, M.D.,
Trustee**

Reports of Trustees

Second District

It has been a pleasure to serve as Second District trustee for the last three years. I have found it very interesting and educational. The meetings have sometimes been long, but it is very gratifying to see so many doctors spend hours at meetings with the expressed purpose of improving the practice of medicine both for the doctors and the patients.

The Second District meeting was conducted by Dr. James Beck in Washington, Indiana, with the host being Daviess-Martin County. The meeting was held at the Elks Club in Washington, and Dr. Lowell H. Steen was the featured speaker talking about the AMA and answering questions in regard to the AMA.

At the Second District meeting, Dr. Ralph Stewart was elected trustee for the next three years. Dr. Stewart is from Vincennes and has been the alternate trustee for the past year. Elected as alternate trustee was Dr. Paul Wenzler of Bloomington, who will serve for the next two years in that capacity. Also, at the meeting were Dr. and Mrs. Alvin Haley, Don Foy, Ken Bush and Sara Klein. The next meeting of the Second District Society will be held next year at Linton with the host society being Greene County.

For the past five years I have served on the Board of Directors of the Southern Indiana Health Systems Agency and although they don't expect to receive their full funding, they are still in business and I am still on the Board of Directors. It has been trying to hear the government dictate some things that have to be done, but I have survived and have enjoyed meeting many new people who dedicate their time to health planning. The Board of Directors will continue to operate even though the funding is decreased. Dr. Richard Huber, who is trustee from Bedford, will also be serving on the Board of Directors of the SIHSA.

I am sorry that I will not be able to continue serving as trustee of the State Medical Association but feel that Dr. Stewart is very dedicated and will do an excellent job.

H. M. Manifold, M.D.
Trustee

Third District

The Third District Medical Society met in April 1981 in New Albany in conjunction with the Indiana Academy of Family Physicians with a good attendance and good scientific meetings plus reports from staff and officers as well as a panel discussion. Election of officers was held and the following physicians were elected: President—Wallace D. Johnson, M.D.; Secretary-Treasurer—Peter H. Livingston, M.D.

Our next annual meeting, to be held in the Spring of 1982, is tentatively planned at Spring Mill State Park in Lawrence County.

Serving as your district trustee, I am impressed with our state organization and the financial status. Our dues, compared to our neighboring states, are lower than any of the

others and our financial situation appears good; and I am impressed with our staff and officers and the dedication of each and every one. I would encourage all members to read the *ISMA Reports* as it will keep you fully informed of what the ISMA is doing.

As well as serving as your ISMA trustee, I am also involved in other organizations and feel as if this has helped me to understand the total medical arena to a better degree. I also serve on the Board of Directors of Blue Shield, Indiana Academy of Family Physicians, Southern Indiana Health Systems Agency, American Cancer Society-Indiana Division, and the local mental health clinic. I especially enjoy being liaison member to the American Association of Medical Assistants of the Indiana Society and the work that they are doing for their members. I am aware of some of the problems that they are having with membership, dues, etc., and would encourage all physicians to do whatever possible to help their office staff to become members of the American Association of Medical Assistants.

Some of the ideas that I see ISMA continuing to face or needing to address in the future are the HMOs, Independent Physicians Associations and professional reviews. With some evidence that we will be having physician surplus in some areas, I think that we are going to have to look at how physicians are going to react to this. I see hospital medical staffs' relationships increasing with allied health providers and various committees and feel as if we are going to have to make sure that our members stay active or become active in local hospital policies and procedures. I am also concerned about the problems that some of our members are facing with the third party notifications of patients and the provider when fees are above the usual and customary, and the letter that seems to be creating a barrier between the patient and doctor. I will continue monitoring this situation.

There is a resolution being presented by one of our member societies from our district to move from one district to another. I agree that there needs to be a look at the total district situation in Indiana, but I am not sure what the best solution is for everyone.

I have visited a few county medical societies and will attempt to visit more throughout the year. Please inform me when and if you would like for me to visit your society. I will look forward to seeing as many of you as possible at our annual meeting in October in Indianapolis. Also, mark on your calendar, the Third District meeting at Spring Mill in the Spring of 1982.

R. G. (Dick) Huber, M.D.
Trustee

Fourth District

The Fourth District Medical Society met May 13, 1981 at the Hillcrest Country Club in Batesville, Ind. Officers elected at the meeting were: president, Ricardo C. Dom-

ingo, M.D.; vice-president, Henry W. Conrad, M.D.; secretary-treasurer, Robert P. Acher, M.D.

Tennis and golf were played throughout the day and enjoyed by all. An evening address following the dinner was carried out by Mr. Robert Garton, president pro-tem of the Senate, from Columbus, Ind.

Doctor Alvin Henry was re-nominated to the Blue Shield Board at the business meeting. The 1981 meeting will be held at Greensburg.

The afternoon business meeting featured a panel discussion by representatives from the State Office of ISMA including Mr. Donald Foy, Dr. Howard Jackson, Dr. Arvine Popplewell, Dr. John Knot, Dr. Shirley Khalouf, Dr. Martin O'Neill, Dr. Alvin Haley, and Dr. Robert Seibel. Other members of the staff from the State Office attended. I would like to thank the State Medical Association staff for their time and support involved in this year's district meeting, especially to Sara Klein whose idea it was to carry out the panel discussion. This format of presentation appeared to be quite successful in helping explain the Association's position on various issues.

The Board of Trustees over the next several months will be involved in making very serious decisions concerning such problems as our own insurance company, I-MEDIC, mandatory membership to ISMA and AMA, and the possibility of setting up our own peer review organization within the state. As my goals are considered for the coming year in our own district, I hope to discuss these issues with all members at the various county medical society meetings. I also hope to encourage other members' participation at the state level where they can see how the democratic principles of the ISMA operate. It is through the participation of the various members at the "grass roots" level that the strength of our society will continue to develop and will represent the members of the Indiana State Medical Association.

Mark M. Bevers, M.D.
Trustee

Fifth District

The Fifth District annual meeting was hosted by the Putnam County doctors on May 27, 1981. The various athletic events planned for the day had to be cancelled because of rain except for the six-mile run, won by our alternate trustee, Benny Ko. We all congratulated 5th District President James Johnson and his fellow county ISMA members for doing an excellent job in arranging the day's program.

The business and dinner sessions were held in the Cloverdale Holiday Inn with good attendance. Well received was a panel discussion on ISMA and AMA activities with the following participants: Drs. Haley, O'Neill, Popplewell, S. Khalouf, Scamahorn, Lukemeyer, Knot, Siebenmorgen, and ISMA staff members. We extend our appre-

Reports of Trustees

ciation to each of these busy persons who took time from their daily work to come and share their knowledge as well as to listen to our special concerns. It was certainly the feeling of those in attendance that physicians who do not actively belong to their respective county, ISMA, AMA, and IMPAC organizations are really not doing their fair share nor pulling their share of the load, leaving so much more to be done by others.

During the business session, Dr. Frank Swaim, Rockville, was elected president of the Fifth District and stated that he hopes to arrange for next year's meeting to be held at Turkey Run State Park. Daniel J. Dwyer, M.D. was elected secretary-treasurer and Paul Siebenmorgen was elected to a second three-year term as trustee. Gratitude was expressed to Dr. Clyde Jett who has served as the district secretary-treasurer for a number of years.

Following the business session came a time for "attitude adjustment" prior to a delicious dinner and an address by Indianapolis Mayor William Hudnut, who delighted and challenged the 85 persons attending.

I close this report by expressing my thanks to the members of the 5th District for the privilege of serving as trustee, to express my gratitude in our fine ISMA staff for all their help and assistance, and to say "Thanks" to Benny Ko, our faithful and loyal alternate trustee.

Paul Siebenmorgen, M.D.
Trustee

Sixth District

In reviewing the past year in the Sixth District, a few things stand out in my mind:

First is a recurrence of an apathy with respect to participation in the activities of ISMA, commission membership especially. Each district has the opportunity to have membership on each commission. As vacancies have occurred, I have found it difficult to find interested and concerned replacements. I intend to address this problem more thoroughly.

Second, Sara Klein appeared in the Sixth District as our field representative. She has been well received and has done a most creditable job for her freshman year.

Lastly, the Sixth District annual meeting was held in Connersville on May 6th with Dr. Douglas Morrell presiding. State staff officers and the Executive Committee were present and contributed to the program.

Dr. Clarence G. Clarkson was elected to continue as alternate trustee. Sixth District officers elected were as follows: Dr. Wm. F. Kerrigan of Connersville, president; Dr. Robert J. Warren of Richmond, vice-president; and Dr. Wylie G. McGlothlin of New Castle, secretary-treasurer.

Mr. Bob Daley of Muncie, speaker of the House of Representatives of Indiana, gave us a fine program on state legislative activities.

I shall continue to try to keep my District

appraised of the many changes taking place about us which will affect our profession and to represent my constituents at the state level.

Davis W. Ellis, M.D.
Trustee

Seventh District

This year's Seventh District Medical Society meeting was held at the Highland Country Club in Indianapolis and for the first time in our district marked the inclusion of the Seventh District of the Indiana Academy of Family Physicians.

We were pleased to have a number of ISMA dignitaries in attendance including Dr. John Knot, chairman of the ISMA Board of Trustees, Dr. Larry Allen, speaker of the ISMA House, Dr. Shirley Khalouf, vice speaker of the House and Dr. Everett Bickers of the ISMA delegation to the American Medical Association. Also in attendance from the State Association were ISMA executive director, Mr. Don Foy, and ISMA field staff members, Mr. Howard Grindstaff and Ms. Sara Klein.

Seventh District member Dr. Alvin Haley updated the members on the developments in PSRO and ISMA's response to its current situation, the newly established corporate visitation program, and a proposed educational program in risk management.

Dr. George Lukemeyer reported highlights of the annual session of the AMA on behalf of the ISMA Delegation.

Additional reports were received from Dr. Larry Allen who encouraged the members of the district to submit resolutions to the ISMA House of Delegates which will meet in October. Dr. Popplewell, who serves as president of the Indiana Physicians Insurance Company, reported that the prospectus is in its final stages of approval. Members will soon be able to purchase stock.

Dr. John Knot pointed out his concern over the lack of medical input in the State legislature and added that he felt better communications with members might alleviate this problem. Dr. B.T. Maxam, a member of the Board of Blue Shield, presented a brief financial and status report on behalf of the Board of Directors of Blue Shield of Indiana.

Annual elections were conducted and resulted in the selection of Dr. Warren Gray of Morgan County as president-elect of the Seventh District and Dr. Malcolm Scamahorn was reelected to continue his service to the district as secretary-treasurer. Dr. H. Marshall Trusler, who is now completing his second year as an alternate trustee from the district, was elected to succeed Dr. John Pantzer who is completing the two full allowable terms as trustee. The election for Dr. Trusler left a one-year vacancy for alternate trustee. Dr. Garry Bolinger was elected to succeed Dr. Trusler in that position. In other action, the district selected Dr. B.T. Maxam for nomination to the Board of Directors, Mutual Medical Insurance Inc.

Following the district meeting, members were joined by their spouses for dinner. We

are pleased that following dinner Governor Robert Orr was in attendance to report on the first several months of his administration.

During the year a number of Seventh District Medical Society members have been extremely active participants in the State Association and in the representation of Indiana physicians at the AMA. In addition to nearly two years of service as president of the association, Dr. Arvine Popplewell has maintained his activity as immediate past president of the Association and as president of the Indiana Physicians Insurance Company. As Dr. Alvin J. Haley completes his year as president of the State Association we congratulate him on a job well done and wish him success as he continues as immediate past president and with his activities in his national specialty society. Dr. Doug White and Dr. George Rawls, treasurer and assistant treasurer respectively, have worked closely with the Executive Committee and the Board of Trustees in handling the numerous financial aspects of our Association.

We were pleased to know that Dr. Malcolm Scamahorn as a delegate to the AMA has also been reelected to the AMA's Council on Medical Services and that he is joined in the vigorous representation of Indiana physicians at the AMA by Delegate Dr. George T. Lukemeyer.

Numerous other members of the district have provided a wide range of services to the Association this past year ranging from editor of THE JOURNAL through commission and committee service. We thank all of them for a job well done in a busy year.

Donald C. McCallum, M.D.
John G. Pantzer, M.D.
Trustees

I appreciate the trust placed in me by the members of the Seventh District Medical Society on my selection to serve as trustee to the ISMA. I hope that the members of this district will continue to relate to my successor their feelings on all matters pertinent to organized medicine. I extend my congratulations to Dr. H. Marshall Trusler and Dr. Garry Bolinger for accepting the rewarding challenge of service which I have enjoyed the past nine years. I have appreciated as they will, the council and support of my fellow trustee, Dr. Donald McCallum.

John G. Pantzer, M.D.
Trustee

I am pleased to take this opportunity on behalf of all the physicians of the Seventh District Medical Society to thank Dr. John Pantzer for his faithful and insightful participation in the business of the ISMA's Board of Trustees for the past nine years. For nearly a decade, John has been attentive, analytical and practical—qualities of statesmanship we all hope to contribute to the progress of our State Association. We are pleased to know that his continued interest will be available to the State Association through other forms of service.

Donald C. McCallum, M.D.
Trustee

Reports of Trustees

Eighth District

The activities of the medical profession in the 8th District 1980-81 have not been unusual, and the number of members has decreased from 292 to 289.

Our annual meeting on June 17, 1981 was hosted by Delaware County with President Larry Cole presiding. Members and guests attending that meeting enjoyed an address by political journalist M. Stanton Evans concerning current events in Washington, D.C.

At the business meeting, several visiting ISMA officers and AMA delegates commented on items of current interest. Also, the membership elected Dr. Richard Reedy as the new trustee with Dr. William Van Ness as the new alternate trustee.

It has been the genuine pleasure of this writer to serve as 8th District trustee for the past six years, representing as accurately as possible the views and wishes of the membership; and the district is to be warmly commended for its selection of Drs. Reedy and Van Ness as its new representatives.

Jack M. Walker, M.D.
Trustee

Ninth District

The 1980-81 medical-political year was "bittersweet." The Board of Trustees has been heavily involved in state and national legislative processes; continuing efforts to carry out the decision of the 1980 House of Delegates to form a life insurance company owned by physicians; monitoring the progress of I-MEDIC (the data accumulation company); monitoring membership services (such as selecting the company to carry medical insurance policies for ISMA members); improving and maintaining liaison with the Indiana State Board of Health, the Indiana Medical Licensing Board, and the third-party carriers; and communicating the results of these efforts to the ISMA membership.

The 1980 national elections were heralded by many physicians as a reprieve from the ominous intrusion of government into medical practice. However, we're finding that a tremendous amount of time and effort are required to responsibly formulate plans for cost containment, plan for review of unusual fees, consider handling the return of block grants to the state for medical care, and educate recently elected conservatives who have no previous awareness of medical care problems. The members of this district and the state association must increase their interest and participation to support the ISMA officers and staff in their attempt to handle these matters appropriately.

The resolution presented by the Ninth District to the 1980 House of Delegates regarding errors in Blue Shield claims passed the House with modifications. Response to that resolution has been less than overwhelming throughout the state. At this time there is no trend to report in the third-party-

error area due to the lack of input from doctors' offices.

Our Ninth District annual meeting was held in June in Crawfordsville, following an enthusiastic pre-planning meeting in Lafayette in March. The overwhelming sentiment at the pre-planning meeting was for a medical-political orientation at the district meeting. At the district annual meeting, Dr. Lowell H. Steen, Hammond, Indiana, past president of ISMA and the current chairman of the AMA Board of Trustees, gave an excellent overview of current political problems involving medical practice. He also spoke of changes occurring in the AMA.

The honor of representing the Ninth District as trustee continues to be a great pleasure to me. Please inform me of your concerns and interests so that I may represent this district as well as possible. As chairman of the Board of Trustees of ISMA, I have had the rewarding experience of meeting many practicing Indiana physicians, medical-political leaders from across our country, executive branch staff involved with medical care matters in the federal and state government, and state and national legislators. I thank all of you in the Ninth District for the opportunity this position has provided me. I have attempted to represent the doctors of this area as you would wish to be represented. Additionally, I have learned a tremendous amount which I have pledged to utilize fully in my involvement with district and state association activities in the future.

John A. Knote, M.D.
Trustee

Tenth District

Several events have led to 1980-81 being a year of transition and change. Most significant was the sudden death of our executive secretary, John Twyman. After 32 years with the same administrative leadership, many functions had been taken for granted. As the incoming trustee, I was denied the advantage of John's counsel in reviewing our history, strength and goals. After the October ISMA convention, in which Dr. Martin O'Neill of Valparaiso was chosen president-elect, our major focus was on the search committee for a new executive secretary. Mr. Jack Swike was finally chosen and assumed his duties on Feb. 1, 1981.

As Mr. Swike assumed his duties, the election of three delegates was conducted. Dr. David Harvey, Dr. William Grosso and Dr. Daniel Ramker were elected. Later this spring, Dr. Grosso passed away and Dr. Lee Trachtenberg of Munster was selected to continue his term.

Several new commission appointments were arranged, including Dr. William Fitzpatrick, Legislation Commission; Dr. G. David Beiser, Emergency Services Commission; and Dr. Alex Sterner, Education. I have continued with the Public Relations Commission at this time. Our Legislative Committee, under Dr. Albert Willardo, remained very active throughout the time of

the General Assembly meeting every Saturday morning.

The distributions have been progressing through the efforts of both the county auxiliaries. Mrs. Bonnie Swarner of Valparaiso has piloted Porter County activities and Mrs. Donna Serna and Cheryl Hieber have coordinated Lake County activities. Tenth District president, Dr. Lee Trachtenberg, has undertaken a goal to increase membership participation.

Our first social outing was a dinner party and star show at the Adler Planetarium in Chicago. Two busloads of members and their families attended this enjoyable outing.

Our annual Tenth District meeting will be held on Sept. 2, at Wicker Park Pavilion and golf, tennis and ladies' programs will be arranged by Drs. Trachtenberg and Santare; Dr. Otis Bowen will be our speaker for the evening.

Charles D. Egnatz, M.D.
Trustee

Eleventh District

As your trustee, I had the privilege this year of serving as a member at large and as chairman of your ISMA Executive Committee.

Our district meeting was held at the Meshingomesia Country Club in Marion. The meeting was well attended by members as well as by ISMA officers and staff. Dr. Phil Thorek was the evening speaker and was well received. Dr. Richard Glendening was elected president, Dr. Fred Pochler was re-elected secretary, and Dr. Ed Langston was elected alternate trustee.

During the year, Dr. Langston and I visited the county societies in our district. We also participated in the pre-planning district meeting.

As a member of the Executive Committee, I participated in the Washington Congressional Visitation in April. Those of us who had participated previously were most impressed with the general change in attitude and philosophy which we encountered. These changes are most encouraging.

I believe, however, that as these changes are made and more responsibility and authority is returned to the states, our medical society will be faced with new problems and challenges. It will be important that we individually and as an organization be alert to the changes and ready to meet the challenges.

Herbert C. Khalouf, M.D.
Trustee

Twelfth District

The Twelfth District ISMA meeting will be held Sept. 17, 1981, at the Downtown Holiday Inn, Fort Wayne. Scheduled as speaker is John Bell, photographer with oceanographer Jacques Cousteau. A spouse's program is scheduled to coincide with our 5 p.m. business meeting. In addition to electing district officers, we will be electing a new alternate trustee.

Reports of Trustees

In the six months during which I have served as trustee, I have attended meetings at all but two of our component county societies and plan to make an appearance at all of them prior to the ISMA October meeting. I am particularly grateful to Howard Grindstaff, ISMA field representative, for his helpful assistance and for the many hours and miles he traveled to visit county society meetings with me.

The input from the local level has been vocal, and a surprising unanimity has evolved on key issues. This unanimity makes representing a group as heterogeneous as the physicians of the Twelfth District seem a more manageable task. I welcome the expressions of individual viewpoints for without them, representation is impossible.

Passage of House Bill 2042 gives the chiropractors of Indiana wide ranging and unprecedented scope of activities in patient care. ISMA opposed this portion of H.B. 2042, and your staff was quite active and visible during the entire legislative session. I am certain that lack of physician involvement allowed passage of this bill as it stands. It does not take effect until July 1982 (after the next session of the General Assembly). In this day of emphasis on individual freedom and caveat emptor, physicians must decide where we stand. I think we have always stood for what is best for our patients, but how far does that obligation extend? Dr. Knot, chairman of the Board of ISMA, has made a significant point differentiating medical care from health care. We as physicians provide medical care. Health care is provided by paramedical and nonmedical personnel as well. Keeping in mind the differentiation between health care and medical care, how far does our obligation to protect the public extend and to what price? It is a problem which should be addressed.

One of the most urgent issues facing organized medicine in Indiana at this time is PEER REVIEW. I think it naive to believe third-party payers will not insist on appropriateness of care review from hospitals. Already Blue Cross-Blue Shield has a pilot project in many Indiana hospitals to conduct that review. Many feel that ISMA must step into this post-PSRO void if review is to remain in the hands of *knowledgeable* physicians. By knowledgeable I mean physicians involved in patient care and therefore aware of the changing needs of our patients at the local level. If State Medical becomes involved in the review process, I think there is significant danger that any ISMA review authority could be placed in an untenable position unless the House of Delegates is quite specific in mandating what we expect and more importantly, what we do *not* expect in terms of function. At least one resolution will address this issue directly, and it deserves careful thought.

Finally, I would like to extend a warm note of thanks to Dr. DeWayne Hull. Although my tenure serving as alternate trustee with Dr. Hull was brief, it was meaningful

and informative. I appreciate the opportunity and accept the responsibility to represent the physicians of the Twelfth District and look forward to doing so in the future.

Michael O. Mellinger, M.D.
Trustee

Thirteenth District

The 13th District Medical Society participated in many activities in the past year. The annual district meeting was held on Sept. 10, 1980 at the Elcona Country club with President Dale Parshall, M.D., presiding. A full day of activities was enjoyed by many.

Election of new officers includes president, M. Gerald Quinn; president-elect, Donald Weninger; and secretary-treasurer, G. Richard Green. Dr's. Robert Sweeney and Otis Bowen were suggested as nominees to the Blue Shield Board of Directors. Donald Chamberlain was re-elected trustee of the District.

The 1981 meeting will be held at the Knollwood Country Club in South Bend on Sept. 16, 1981, with an excellent program planned.

The ISMA auxiliary held their annual meeting at the Century Center in South Bend on April 14-16 with State President Mrs. Herbert Schiller of South Bend presiding. It was a well organized and rewarding three days for the auxiliaries. The 13th District assisted in sponsoring the program, which was well attended. It is good to know that we have such dedicated spouses assisting us.

President Reagan's budget cutting programs are directly affecting HSA and PSRO as well as other government-supported organizations impacting on health. It appears that the HSA will be replaced by a local non-regulatory foundation for health planning. The PSRO will either be consolidated or replaced by Blue Cross and/or local hospital quality assurance programs. It is imperative that physicians not assume all is well but remain committed to being involved in health planning and quality assurance peer review. It should be anticipated that if sudden freedom of spending by hospitals occurs, a significant increase in cost may follow. Such fears or results may signal governmental controls even more onerous than presently realized.

The ISMA continues to identify areas that will benefit the membership. The Indiana Physicians Insurance Company (IPIC) is operational and in the process of selling stock as well as its initial products. The members will benefit from the available insurance policies designed for physicians and their employees at a reasonable cost. The computer capabilities of I-MEDIC, while under pressure from PSRO cutbacks, will be able to be utilized for data collection and support functions of the organization.

The 13th District-supported resolution asking for additional ISMA field service representation resulted in approval of Howard

Grindstaff to again be liaison to the northern half of the state. He will assist the members in county societies as so requested. Howard is extremely capable and knows our district well. We are fortunate and will directly benefit by this change.

Our own Otis Bowen has been of great joy and pride to our District and we wish him well in his new ventures.

There is good communication with the present State and Federal representatives from our District and it is our desire to continue this effort.

I would like to thank Mrs. Rose Vance, executive director of the District and John Luce, M.D., alternate trustee to the 13th District, for all the assistance these past few years. The many members and their spouses who have participated in the many activities of organized medicine or acted as representatives to various health organizations should be complimented by all for their commitment to maintaining and improving the health care system for our patients.

Donald S. Chamberlain, M.D.
Trustee

Report of AMA Delegation

ACTION: Referred to the Board of Trustees

Chicago, June 7-11, 1981

The AMA delegation, exercising its political expertise and strategies, paved the way for re-election of Peter R. Petrich, M.D., Attica, to the Council on Constitution and Bylaws and re-election of Malcolm O. Scamahorn, M.D., Pittsboro, to the Council on Medical Service.

At the same time the delegation committed itself to an announcement to all other state delegates and officers in July 1981 that Lowell H. Steen, M.D., Hammond, member of the Board of Trustees of the AMA, would be a candidate for the office of president-elect of the AMA in June 1982. Doctor Steen was ineligible for re-election as chairman of the AMA Board but was re-elected to the chairmanship of the Council of the World Medical Association.

As one observer from another state remarked, "The Indiana delegation seems to be doing extremely well in its official representation at the AMA."

Daniel T. Cloud, M.D., Phoenix, was installed as the AMA's 136th president and William Y. Rial, M.D., Swarthmore, Pa., speaker of the AMA House, was elected to the post of president-elect.

The Indiana delegation instituted a new procedure at this meeting by joining with delegates from Illinois, Michigan and New York to interview the 36 candidates running for AMA offices and councils. The session was so successful that these states will continue with this plan in June 1982, and will include Pennsylvania delegates and representatives of the National Specialty Societies.

Highlights of the activities of the House included the following:

AMA Restructuring

Delegates approved a major restructuring of AMA's organization and staff, and voted a \$35 annual dues increase to support it (to \$285), but did not adopt board proposals to discontinue two AMA councils.

The House voted to retain the Councils on Constitution and Bylaws and Long-Range Planning, and to discontinue the Council on Continuing Physician Education.

The House voted to preserve the Interim Meeting, while authorizing the board to study a less costly gathering that would preserve participation in policy making.

The delegates also accepted the principle of considering annual incremental dues increases in the next two years. Their suggestions for considering subsequent annual increases of \$30 and \$25, however, are not binding on future Annual Meetings.

Delegates accepted the board's arguments that program and staff consolidations would produce a leaner and more effective AMA, but refused to yield what some considered to be important council roles in policy making.

Direct Membership

Physicians will be able to join the American Medical Association directly, the House of Delegates decided.

In adopting the new plan, the AMA promised to "put its first emphasis on recruiting physicians through the federation in cooperation with states that want to join the AMA in a marketing campaign."

According to a tentative timetable, AMA will conduct its first direct recruiting of non-AMA members in May 1982.

In approving the new plan, the delegates agreed to:

- Count the direct members from each state, for purposes of determining the number of delegates to the AMA House of Delegates from each state.

- Immediately undertake a joint study with the American Assn. of Medical Society Executives (AAMSE) to explore ways in which the various levels or organized medicine can coordinate programs and maximize effectiveness and efficiency at each level.

- Ask the AMA's Board of Trustees to report to the House of Delegates after three years' experience with the direct membership option providing a review and reappraisal of the program.

- Exempt unified membership states from direct recruitment activities.

Competition Legislation

Despite some appealing aspects, "pro-competition" national health insurance bills could have some not-so-appealing consequences for physicians.

This is the essence of a report from the Board of Trustees adopted by the House.

The competition proposals would result in a shift in the way medical services are delivered, the report warns. Currently, medical care is delivered through a decentralized market, with many individual providers and purchasers.

Competition proposals assume that given an incentive such as cost to choose a health insurance plan with fewer benefits, consumers will be willing to accept responsibility for some first-dollar health care costs, and consequently will be motivated to use fewer health care services, the board report says.

The likely result will be market concentration. "Sponsors of insurance plans, particularly under the more comprehensive competition models, would be expected to exercise their purchasing power to control selection of providers and facilities through special arrangements with them. The availability of care to plan subscribers would be governed by such arrangements, negotiated fee schedules, and a greater reliance on large group practices, where costs theoretically could be lowered through strict internal controls," the report said.

Government and Health Planning

The Reagan Administration will look to

industry, labor, the money markets, and the public to apply pressures needed to assure a cost-effective health-care delivery system.

That assessment was offered by Edward N. Brandt, M.D., newly confirmed assistant secretary for health of the U.S. Dept. of Health and Human Services.

Dr. Brandt said the federal government intended an orderly withdrawal from health planning and professional standards review activities, and expressed confidence that the medical profession, hospital administration, and the public would respond positively to planning and review responsibilities.

"You now have the opportunity to make the system better," he said, referring to providers and users. "In essence, it's your problem, and we in government are confident that your responsibility will be met."

Dr. Brandt explained that the federal government has three overriding concerns. "First, we want to cut back on federal spending. Second, we must define areas in which the federal government shouldn't be involved. Finally, we want to ease the regulatory burden imposed by government, which will require legislative change."

The Administration also plans to strengthen the federal role in preventive care and delivering aid in emergencies, the physician said in a speech to the AMA House.

Examinations for Licensure

A debate between medical educators and state licensing authorities over the proposed FLEX I-II sequence was aired at the meeting.

The Council on Medical Education (CME) and the Section on Medical Schools resolved to oppose the test sequence that the National Board of Medical Examiners (NBME) is developing at the request of the Federation of State Medical Boards (FSMB).

FLEX I-II was intended to replace the present National Board examinations and the Federation Licensing Examination (FLEX) with a single, uniform standard of licensure.

A medical school graduate would be required to pass FLEX I before entering residency training. If the graduate failed the test, he would be deemed unprepared for residency training, despite his performance in medical school.

Under the federation's proposal, new physicians would be required to pass FLEX II before entering the unsupervised practice of medicine. The federation has not announced its plans for physicians who fail FLEX II.

By a large majority, the House of Delegates sided with the council and the Section on Medical Schools, and concurred with the reference committee that the FLEX I-II concept would produce far-reaching and potentially disruptive changes in the medical education system.

"The concept is seen as a mechanism that would lead to limited licensure and place unnecessary barriers in the progression from student to resident to practitioner," according to the reference committee report.

Report of AMA Delegation

Assessment of Quality Care

The AMA will take a leadership role in developing and promoting effective means of physician assessment of the quality of medical care, regardless of the fate of professional standards review organizations.

This was among the proposals on peer review adopted by the House of Delegates.

In other related actions, the delegates also said:

- Physicians should maintain control and direction over peer review, and peer review should be done only by physician-sponsored organizations, regardless of the funding source for such review.
- Physicians, acting through their state medical associations, should provide for protection of the confidentiality of existing data accumulated for PSROs, regardless of the future fate of PSROs.
- The American Medical Association will notify all agencies involved in medical peer review that such review be done only by physician-sponsored organizations.

Medicare, Medicaid Reimbursement

Continuing dissatisfaction with Medicare and Medicaid reimbursement policies was voiced by delegates.

Seven resolutions and reports were aimed at making reimbursement policies more responsive to market realities. The Texas delegation offered a resolution seeking adjustment of the economic index applied to Medicare reimbursements to correct an historical anomaly.

Physician charge data were established in 1971, when there was a large differential between urban and rural physician charges, one Texas physician pointed out.

"It was an accidental differential, but Medicare locked in the 1971 fees," he said. "As a result, rural physicians of Texas can travel as many as 20 miles for a home visit, and be reimbursed at the level of \$7. This formula has worked a marked disincentive for physician recruitment in rural areas."

The Texas delegation sought support for a one-time adjustment of the economic index to correct the problem.

In lieu of that, delegates adopted a report calling for legislation to eliminate from Medicare the economic index, to update charge levels more frequently, and to allow new physicians to be reimbursed at the 75th percentile.

Terminating HMO Funds

The House reiterated its support for the elimination of government funds for new start-ups of Health Maintenance Organizations and for the termination of funds for other HMOs after completion of the current funding cycle.

In other actions involving HMOs, the delegates referred to the Board of Trustees a report stating that HMOs may produce lower cost care, but recognizing that varying factors in differing health care delivery systems do

not permit an absolute, direct cost comparison. A similar statement—that HMOs may produce lower cost care than traditional fee-for-service medicine—was referred by the House to the Board of Trustees.

Also referred to the board this year was a resolution opposing the use of federal taxpayers' funds for HMOs' solicitation of patients and calling for the AMA to publicize the inappropriate use of tax funds to subsidize HMOs. The reference committee pointed out that the AMA is already on record as strongly protesting the use of tax money to promote HMOs and has aggressively transmitted this policy to the federal government and to the membership.

AMA-ERF Gifts

Gifts totaling nearly \$1.8 million were presented to the American Medical Association and Research Foundation during the meeting.

The gifts, presented at the opening session of the AMA House of Delegates, included:

- a. \$1,692,346.03 from the AMA Auxiliary.
- b. \$100,000 from the Audio Digest Foundation.
- c. \$2,500 from the 50 Year Club of American Medicine.

AMA-ERF President Hugh Ritter, M.D., noted that the foundation last year distributed \$1,282,599 in unrestricted grants to medical schools. The AMA-ERF Guaranteed Student Loan Program has suspended lending for the time being.

Tobacco Subsidies

In a change of policy, the House of Delegates voted to support the elimination of federal price supports for tobacco.

Delegates from tobacco-growing states attempted to forestall the move by offering as a substitute a resolution urging the Association to continue to inform the public that smoking is detrimental to health. The House, however, at the suggestion of student delegate Ronald M. Davis, combined the two resolves and approved them both.

Other Actions

Asked the Judicial Council to review its opinion on charging interest on overdue accounts.

Rejected a proposal that members of the AMA's Council on Scientific Affairs be appointed rather than elected.

Approved a change in the AMA bylaws to delete the requirement of either American Medical Student Assn. membership or the endorsement of two AMA members as a condition of medical student membership in the AMA.

Agreed to support the American Academy of Pediatrics in its efforts to assure the appropriate role of physicians and educators in developing special education programs for handicapped children.

Voted to support HR 3722, a bill that would place a moratorium on the Federal Trade Commission's activities involving professionals.

Referred to the board a resolution asking the AMA to support modification of PL 96-449, which bases Medicare payments for physicians in teaching hospitals on revenues from all other payment sources, including Medicaid fee schedules.

Accepted a report from the board noting that the Council on Legislation has developed draft legislation that would set standards of qualifications for government agency consultants.

Said federal or third-party funds provided for reimbursement of physicians serving on mandated hospital review committees should not be diverted for other purposes by the hospital.

Said each physician should determine for himself what his relationship with any third party should be.

Opposed state laws making a physician's licensure contingent upon his providing services to Medicaid beneficiaries or any other specified category of patients.

Asked the AMA board to continue to investigate the current medical liability situation and report back annually.

Referred a proposal asking the AMA to urge the government to establish a Maternal and Child Health Administration.

Urged all members of the AMA to render participation in and support of the National Guard and Reserve Forces.

Backed development of an AMA program of education in dealing with the prevention of child molestation, incest, and exploitation of children.

Supported the continuation of the Commissioned Corps of the United States Public Health Service.

Urged the federal government to modify reimbursement to include non-institutional geriatric medical care to keep people in home-type settings.

Reports of Commissions

ACTION: All Reports Filed

Commission members were listed in the September 1981 issue of THE JOURNAL, page 609.

Medical Services

The business of the ISMA Commission on Medical Services and the Subcommittee on Insurance involves acting on actions mandated by the House of Delegates as well as interim issues referred by the ISMA Board of Trustees.

During fiscal 1980-1981 the commission studied and recommended specific actions to the Board of Trustees regarding Resolutions 79-6 (Ancillary Services Review), 80-1 (Equitable Risk Classification), 80-5 (Blue Shield Claim Errors), 80-11 (Fireworks), 80-12 (Tumor Registry), 80-13 (Cancer Insurance), and 80-14 (Retroactive Denial of Insurance Claims). Additionally, the commission reviewed the 1980 address of the president-elect and made recommendations for Board action where appropriate. All issues dealing with House of Delegate actions have been thoroughly investigated and reported back to the Board of Trustees with appropriate recommendations.

In other actions, the commission has finalized its activities toward the creation of a uniform claim form and has reviewed and commented on the AMA's guidelines for the categorization of hospital emergency capabilities. It has investigated and reported to the Board on the nurse shortage issue, has reviewed and made recommendations to the Board regarding physician supply, and has been successful in influencing the Chrysler Corporation to completely redesign its mental competency form.

The Subcommittee on Insurance met several times to discuss the ISMA members' health insurance plan. After reviewing competitive proposals from two separate insurance companies, the subcommittee recommended to the Board that ISMA renew its contract with Indiana Blue Cross/Blue Shield. We regret to report that the cost of the Group Health Insurance plan has increased this year after several years of decreases. After negotiating with two insurance companies, we are convinced that a rate increase was inevitable.

On the positive side, however, we must also report that our negotiations have resulted in a strengthened benefit plan for ISMA members. Additionally, we were successful in involving ISMA in the administration of the insurance plan. The ISMA office now handles billing and centralized record-keeping for the member Group Health Insurance Plan.

John D. MacDougall, M.D.
Chairman

Subcommittee on Insurance:
John D. MacDougall, M.D.
Garry L. Bolinger, M.D.
Francis W. Price, Jr., M.D.
John R. Thomas, M.D.
William D. Cutshall, M.D.

Legislation

The Commission on Legislation had its hands full with this year being a 60-day legislative session of the Indiana General Assembly and there being more than 1,600 bills introduced, of which approximately 145 were health-related.

Most of the commission's time, during the session, was spent discussing the lengthy H.B. 2042. This piece of legislation, over the strong opposition of the commission, passed the General Assembly. The most important section of this legislation was that dealing with chiropractors. Under the new law, a separate chiropractic board is created. It also permits chiropractors to perform blood analysis and urinalysis in their offices, but forbids them to penetrate the skin for any other reason.

Despite the passage of H.B. 2042, the commission felt it was not a total lost effort because, even though the bill does provide the chiropractors with their own separate board, ISMA was at least successful in including in the bill a restrictive scope of practice.

Another major provision of H.B. 2042 concerns the creation of two "service bureaus." The purpose of the Health Professions Service Bureau, which will administer the health occupations, will be to supply the necessary administrative personnel to assist the Medical Licensing Board, as well as the other health boards, in obtaining full and complete records of all licenses and permits applied for and issued to health professionals. The second "service bureau" is concerned with the disciplining of a practitioner, which will be handled through the direct filing of written verified charges with the Consumer Protection Division of the Attorney General's office.

In the long run, perhaps the most important provision related to chiropractors contained in H.B. 2042 is the restrictive scope of practice. Should the chiropractic board fail to discipline those chiropractors who do not modify their practices accordingly, there will at least be some legal basis for bringing suit against the chiropractic board. This law will not take effect until July 1982, which will allow further time for reflection.

H.B. 1389, which was sponsored and strongly supported by the commission and passed by the General Assembly, removes requirements that applicants for marriage licenses be tested to determine their Rh factors as well as if they are carriers of sickle cell anemia. The bill was amended to prohibit all tests for individuals 60 and over when the intended spouse is also 60 or older. It also provides that females being tested for immunological response to rubella will be deleted after Jan. 1, 1985. Additionally, a study committee under the State Board of Health shall study the cost and effectiveness of the current syphilis screening program and report back to the General Assembly before Dec. 31, 1981.

The Commission on Legislation also sup-

ported legislation, which passed the 1981 General Assembly, that provides immunity from civil liability for school employees who administer medication to students. The law applies only if the medication is a nonprescription drug administered with the written permission of the student's parent or guardian.

Another commission-supported bill that passed this year, S.B. 99, establishes a comprehensive health association composed of all insurers in order to make health insurance available to any citizen who applies.

The commission also sponsored and supported S.B. 402, which passed the General Assembly, and requires the Commission on Forensic Sciences to create a medical examiner system to provide assistance to coroners in investigating deaths.

Thanks go to the members of the commission, guests and staff for their participation and input at the seven meetings held from December 1980 to July 1981. I wish to extend a special thanks to Rick King for his superb effort during this legislative session. Without Rick's expertise and effort in lobbying, our success would have been markedly diminished. Many legislative issues and proposals were discussed which affect the practice of medicine and the protection of the public's health within the state; without the active involvement of physicians on this commission, we would be unable to gather the ideas and knowledge needed to present our position to the General Assembly.

Richard L. Reedy, M.D.
Chairman

Medical Education

This has been a year of change and uniformity for continuing medical education. The Indiana State Medical Association once again grants Category I accreditation to qualified institutions and organizations in our state.

As per the Accreditation Council for Continuing Medical Education minutes of March 27, 1981, the standard period of accreditation for all institutions and organizations complying with the essentials will be six years.

All specialty societies will be advised to consider co-sponsorship from their local hospital, as the proposed guidelines from ACCME will indicate this as the appropriate means for specialty society accreditation.

ISMA now uses a revised (and shorter) pre-survey application.

The members of the Commission on Medical Education were invited to comment on the concepts and principles of "The Interface Between Undergraduate and Graduate Medical Education" as assigned to Task Force #1 of the AMA to study the "Future Directions For Medical Education."

The commission followed, with utmost interest, actions regarding the GMENAC Report. Likewise, legislation pertaining to medical education was reviewed by the commission.

Reports of Commissions

Following are the accreditation and reaccreditation actions of the Commission on Medical Education/Subcommission on Accreditation this year:

Accreditation:

Winona Hospital, Indianapolis

Reaccreditation:

Bartholomew County Hospital, Columbus
Terre Haute Regional Hospital, Terre Haute
St. Mary's Hospital, Evansville
St. John's Hickey Memorial Hospital, Anderson

Bloomington Hospital, Bloomington
Clark County Memorial Hospital, Jeffersonville

Community Hospital, Anderson
Welborn Memorial Baptist Hospital, Evansville

Tipton County Memorial Hospital, Tipton
Indiana Orthopaedic Society
Indiana Bone and Joint Club
Indiana Philippine Medical Association
Indiana Psychiatric Association
Indiana State Board of Health
St. Joseph County Medical Society
South Bend Medical Foundation
Terre Haute Academy of Medicine
Central Indiana Society of Occupational Medicine

Steven C. Beering, M.D.
Chairman

Subcommission on Accreditation:

Eugene M. Gillum, M.D., Chairman
Robert D. Robinson, M.D.
Patricia Keener, M.D.
Donald M. Schlegel, M.D.
Jim Lawrence, M.D.
C. William Johnson, M.D.
Jeffrey J. Kellams, M.D.
T. Max Warner, M.D.
Raymon Duncan, M.D.
Ned Rule, M.D.
William M. Matthews, M.D.
Glenn Bingle, M.D.
Thomas Antalik, M.D.
James E. Cassady, M.D.
William Ragan, M.D.

Physician Impairment

The Commission on Physician Impairment continued to meet regularly during the last year and handled over 40 contacts during this year for a total of approximately 150 contacts regarding possibly impaired physicians in the first four years of the commission. Most contacts were identified as having significant problems and were successfully referred for treatment and rehabilitation.

Continuing education efforts were made with a series of articles in *THE JOURNAL* of the Indiana State Medical Association, an exhibit at the 1980 annual convention, and talks to several groups including the Indiana Hospital Association and medical students. The commission sponsored a visit by Dr.

Henry Pfifferling, a nationally recognized expert in the field of impaired health professionals, who spoke on the impaired physician at a combined meeting of ISMA's Commission on Physician Impairment and Marion County Medical Society's Physician Impairment Peer Review Committee. The commission purchased the movie and video tape entitled "Our Brothers' Keeper," which shows in dramatic form some of the problems related to an alcoholic physician. Several members of the commission also attended national and regional conferences on physician impairment.

Commission members assisted in development of the Marion County Medical Society's Physician Impairment Peer Review Committee; three members of the state commission also are members of that committee.

The commission plans continued efforts with possibly impaired physicians, continued education programs, a series of articles in *THE JOURNAL* on physician impairment, and a revised brochure concerning commission programs.

I wish to thank all members of the Commission on Physician Impairment for their efforts and assistance during the last year in developing an effective program of "doctors helping doctors."

Gerald P. Johnston, M.D.
Chairman

Constitution and Bylaws

Your commission has worked diligently throughout 1981, fulfilling the mandates of this House and President Haley, making every attempt to update, modify and organize our Bylaws into a document that will serve more expeditiously to govern our organization. I wish to commend those many members of the commission who have faithfully attended and participated in the five meetings held during the year. Your Speaker and Vice-Speaker have contributed significantly by faithful attendance and helpful advice and counsel at each meeting.

The Bylaws were thoroughly studied and areas of ambiguity and/or contradictions hopefully have been eliminated through appropriate proposed amendments. Proposed amendments of any major significance are presented as separate resolutions for discussion and debate.

We are proposing a decimalized version that is easily indexed for easy reference concerning Constitution and Bylaws questions. This certainly will facilitate a more practical document that will aid any member interested in questions concerning this most important document.

I would be remiss not to pay special tribute to the diligent efforts put forth by Ms. Beckett Shady, our staff representative, and Mr. Ron Dyer, ISMA attorney, who has kept us within due legal bounds. However, the members of this commission will take full responsibility for the contents of this proposed document.

Ms. Shady and Mr. Dyer faithfully responded to our many requests.

(The decimalized version of the Constitution and Bylaws, presented to the 1981 House of Delegates, will be published in its entirety in a future issue of *THE JOURNAL*.)

Lloyd L. Hill, M.D.
Chairman

Public Relations

The Commission on Public Relations met in January, March, May and August 1981 to review ongoing public relations programs and to make recommendations concerning the expanded internal and external public relations program for 1981.

The commission agreed that the ongoing programs—ISMA Reports, Knot's Notes, ISMA slide show, ISMA convention publicity, Voluntary Effort, and news releases about medical issues and events—are important and should continue. The commission also felt the effectiveness of the external public relations program could be enhanced by adding the following new programs, described in detail later in this report: "Your Hoosier Doctor Says . . ." for the print media; "Your Hoosier Doctor Says . . ." radio program; "Heartbeat" (a new socio-economic newsletter), and an ISMA Speakers Bureau.

An updated version of the ISMA membership recruitment slide presentation was reviewed and approved by the commission. Although the slide/tape show has been referred to as a recruitment tool, the commission feels it is also an excellent reinforcement and guide to the services and benefits of membership in organized medicine for existing members. Therefore, the commission recommended that it not only be offered to internship and residency programs, but also be used by ISMA's field representatives for showing at hospital staff, district and county society meetings. The presentation, which runs about 15 minutes, is on tape and has been pulsed to change slides automatically. A Caramate slide projector has been purchased by the commission for showing the slide/talk program. The presentation has been used several times in 1981 and has been very well received. If it hasn't been shown at your hospital staff meeting, district meeting, or county society meeting, let your field representative know. It is definitely worth the 15 minutes it takes to watch.

In December 1980, the public relations staff traveled to Bloomington to assist Channel 4 in the production of four public service announcements for the Voluntary Effort. The spots, written by the ISMA public relations staff and approved by the Commission on Public Relations, have since been distributed to the TV media in Indiana and have been used on several occasions. The first theme-of-the-month kit—"Your Doctor as Your Health Manager" and "Lifestyle"—was completed and sent to the ISMA Auxiliary VE coordinators for use in promoting the

Reports of Commissions

VE in Indiana. The kit contained order forms for VE materials, radio public service announcements, sample news releases and instructions on how to use the material. A kit for the business communicator was also completed and sent out. Bloomington's VE committee put on a pilot program of the business/industry seminar which, if determined to have been successful after reviewing the comments, will be offered to other communities to stimulate more interest in the VE. In addition, the public relations staff is assisting in the production of a VE slide presentation for use by business and industry; it will give a brief history of the VE and some ideas of what they can do to help lower health care costs. The VE is still a very visible public relations program in Indiana and gives us the opportunity to continually point out that the VE to contain health care costs is working in Indiana.

First of the new external public relations programs started was "Your Hoosier Doctor Says . . ." for the print media. Four releases of general health information, with quotes from Indiana physicians, are sent to the print media each month. The articles have enjoyed a favorable response and use by the media. A companion piece, "Your Hoosier Doctor Says . . ." radio program, is in the process of being implemented. The ISMA Auxiliary has agreed to set up and conduct physician interviews, which will be aired over local radio stations. A training session was held at the home of Auxiliary President Mrs. Glenn (Marianna) Irwin, and other training sessions will be arranged as requested. The tapes will be reviewed by members of the commission before they are aired, and a transcribed copy will be made available to the public upon request. The commission

views these two new programs as a very positive external public relations program.

Another new external public relations program which has received high praise from other medical societies around the country, in addition to the media, business and industry leaders in Indiana, is Heartbeat. Heartbeat is a new socioeconomic newsletter written by the public relations staff. It includes articles on ISMA policy, information on events of current medical/legislative interest, innovations in treatment, cost containment efforts, and so on. Heartbeat is sent to the media, legislators, business and industry leaders, and chambers of commerce.

One other new external public relations program started this year is the ISMA Speakers Bureau. The commission decided because of the time involved in serving as a "middleman," ISMA's responsibility for the Speakers Bureau would consist of producing a brochure which lists available speakers and topics, as well as contacts for arranging for locally available speakers. The arrangements for engagements, etc., will be handled through direct contact between the seeker and the physician-speaker. The first speakers brochure will soon be published. As new speakers are identified, they will be added to the brochure.

ISMA's public relations staff also produced a new pamphlet, "I want to know what you think," which has been purchased in quantity by several ISMA members. The pamphlet is a patient opinion questionnaire which physicians may use to collect feedback on patient concerns and satisfactions/dissatisfactions. It functions both as a PR tool, directly demonstrating physician interest in their input and, with tabulation of favorable results, a possible media tool. The commis-

sion feels the positive results received so far will provide the public relations staff with factual patient opinion data for future releases. Some of the media have already expressed an interest in the results.

A "Smoke Inhalation" pamphlet and a "Patient Referral" pamphlet are now being produced by the public relations staff for use by ISMA members. ISMA Reports will be used to announce when they are available.

The internal public relations program was enhanced this year with the addition of "Guidelines for Handling Press Interviews," and "The Who, What, Where, When, Why, and How of Submitting a Resolution." ISMA Reports and Knote's Notes continue to carry the bulk of the internal public relations program.

Once again the commission made its selection for the Journalism Awards and for the Physician Community Service Award. These awards will be presented at the first session of the House of Delegates during ISMA's annual convention in October. All nominations for these awards were submitted by county medical societies.

In addition to the above, the public relations staff has been involved in sending out news releases, responding to print and broadcast media questions, and carrying on the normal internal communications programs.

As chairman of the commission, I wish to thank the ISMA Auxiliary for their continued assistance in the external public relations programs of the Association, and the members of the commission who gave of their time and suggestions to help make 1981 a very successful year for the Association's public relations programs.

John V. Osborne, M.D.
Chairman

Convention Arrangements

The Convention program constitutes its report.

Reports of Committees

ACTION: All Reports Filed
(except as noted)

Committee members were listed in the September 1981 issue of THE JOURNAL, page 609.

Medico-Legal Review

The Medico-Legal Review Committee had a minimum of internal inquiries submitted to it, which were handled by the chairman with no inquiries requiring committee action. However, the chairman has been in contact with Charles W. Hoodenpyl, J.D., chairman

of the Indiana State Bar Association Medico-Legal Committee, on an as-needed basis.

I would also like to report that the Governor's Medical Malpractice Study Commission has been changed to a legislative study committee.

During the year, the committee chairman has attempted to determine the status of the inter-professional code within the Indiana State Bar Association and has been advised that while the ISMA approved the code on Oct. 9, 1957, and approved a revision on Oct. 14, 1971, the Indiana State Bar Association has apparently never approved either document as of this date.

ISMA has been advised that a committee of one has been appointed by the ISBA Medical-Legal Matters Conference to study the code and report back to it, at which time the ISBA Medical-Legal Matters Conference intends to submit its draft to the ISMA Medico-Legal Review Committee for comments.

We are hopeful that we will have an inter-professional code satisfactory to both professions in the immediate future. Our committee will continue to assist the Association in any way possible.

John W. Beeler, M.D.
Chairman

Reports of Committees

Medical Education Fund

The Indiana Medical Education Fund Committee met in February 1981 to review the investment portfolio performance for 1980. Mr. John Smith, AFNB vice-president and trust officer and fund manager, presented the investment review. Although no recommendations were made for changes in the portfolio, it was agreed that earnings and contributions being received were to be placed in the short-term investment fund. The 1980 current return on the short-term investment was 16.688%.

The 1980 interest rates were very high, which produced a reduction in the overall market value of the portfolio. However, 1981 interest rates are expected to stabilize and begin a slow decline. This will have a positive effect on the investment portfolio.

The committee held a second meeting in May 1981, at which time the committee received a request for \$100,000 from Dr. Steven C. Beering, Dean of the Indiana University School of Medicine. The request was granted and the funds have been disbursed.

Again this year, the largest single grant under the AMA-ERF program went to the Indiana University School of Medicine. In March 1981 the fund received \$55,556.83 from the AMA-ERF. Prior contributions have been as follows: 1980, \$48,476.18, and 1979, \$41,427.60.

The present status of the fund is as follows:

Fund balance 3/31/80.....	\$446,354.37
Received from AMA-ERF.....	55,556.83
Income	62,441.74
Trustee fees	(-2,304.38)
Distribution to Indiana	

University School	
of Medicine.....	(-100,000.00)

FUND BALANCE 6/30/81 \$462,048.56

John W. Beeler, M.D.
Chairman

Grievance

The Grievance Committee met in 1981 and reviewed seven cases. Action was taken as necessary and all but two of the cases were closed.

As usual, the lack of good patient communication was the source of most of the complaints we received.

The Grievance Committee wishes to thank members for their attendance and, in particular, Dr. George T. Lukemeyer for his help during the past year.

G. Beach Gattman, M.D.
Chairman

Negotiations

The Negotiations Committee has not officially met this year. It is the belief of some of the members of the committee that knowledge of and skills in negotiation will prove most useful to the society.

Because of the financial belt tightening that the AMA is undergoing, the Department of Negotiations has been disbanded and its functions assigned to the legal department.

Herbert C. Khalouf, M.D.
Chairman

Future Planning

ACTION: Referred to the Board of Trustees for consideration

During the past year the Future Planning Committee considered a number of items including the roles of medical students and residents in the structure of organized medicine, field service, strengthening relationships with county medical societies, services to specialty organizations, chiropractic legislation, and made recommendations in organizational planning and public relations.

In considering the roles of medical students and residents, the committee planned to submit two resolutions to the House of Delegates.

The resolution covering students resolved that the "ISMA bylaws be modified to meet the needs of medical doctors during their student training by creating a district component 'Student Medical Society' complete with delegate and alternate delegate to the ISMA House of Delegates."

The resolution further called for student dues to be set at 10% of the regular member dues, and that students be accorded full rights and privileges of membership. In like manner the Future Planning Committee also asked for the establishment of a "Resident Medical Society," with resident dues established at 20% of regular member dues. Residents, too, would be accorded full rights and privileges of membership.

In considering the field service operation of ISMA as set forth in Resolution 80-4, the committee urged strengthening relationships with county medical societies through the direction of more contact with the smaller county societies by field staff, officers and trustees.

In additional consideration of ways to strengthen the ties between the ISMA and its component societies, the committee suggested that an annual communication be sent to county societies as an on-going reminder of the services available from ISMA to its members, that the feasibility of reinstating the annual county society officer conference be studied, and that a speech be prepared for use at every district meeting designed to stimulate interest in acquiring new members.

Currently, as an adjunct to a continuity of communication with county societies, the

newly elected president and secretary of each county receive a letter and an informational packet from the ISMA executive director to assist the new officers in their responsibilities.

The committee recommended, in its annual report to the House of Delegates in October 1980, that quarterly meetings with presidents and secretaries of county medical societies be held with the specific objective of more "grass roots" involvement.

This same recommendation was presented to the Board of Trustees this year for consideration as an additional plan to strengthen relationships between component societies and the ISMA.

Services to specialty organizations were reviewed by the committee. At this time the headquarters is providing staff support and assistance to the Indiana Society of Internal Medicine, Indiana Directors of Medical Education and the Indiana Chapter of the American Academy of Pediatrics. All specialty societies in Indiana have been made aware of the availability of such services, which are arranged through the mechanism of a formal agreement between the specialty society and the headquarters office.

Much consideration was given to chiropractic legislation, which was passed during the 1981 legislative session. The committee pointed out that, had Indiana physicians rallied against this legislation as they had in support of the professional liability bill, the chiropractic legislation would have been defeated. The committee expressed strong conviction that legislative measures be taken to establish the Chiropractic Board as a sub-board of the Medical Licensing Board and that chiropractors' right to puncture the skin be amended out of the act.

In other actions the Future Planning Committee recommended:

1. That a chart entitled "Total Corporate Planning" (TCP) be studied by the Board of Trustees as a guide for productive growth and accomplishment.

2. That the Executive Committee and/or the Board of Trustees assume the responsibility of appointing all commissions and committees, assign tasks or problems to these bodies, and that commissions/committees report regularly to the Executive Committee.

3. That news releases be sent to county presidents in advance of the release date with background material and that news releases indicate the medical society officers or their delegated representatives who may be contacted by media reporting staff.

4. That when an ISMA member is elected or appointed to an ISMA commission or committee or an AMA Council the physician's local press be advised.

Finally, in reviewing the 1977 survey of members, the committee recommended that staff continue to evaluate the feasibility of developing mass purchasing plans for ISMA members such as office furniture, medical equipment, etc.

Peter R. Petrich, M.D.
Chairman

Miscellaneous Reports

The Journal

ACTION: Filed

At the end of the third quarter THE JOURNAL had good diplomatic relations with the budget. Individual items of budget have matched actual expenditures fairly closely but with a total expenditure/income balance some \$3,100 below the budget projection. This was the result of a slight increase over expectations in paid journal subscriptions, reprint sales and both local and national advertising, as well as a considerable increase in receipts for the newly revived "Physicians' Directory." On the expense side the printing bill has tallied higher than expected and the outlay for graphics has proved slightly lower. Even with the larger than average September issue the year should be finished comfortably within budget.

Articles, both of scientific medical content and on socio-economic subjects are being

published in adequate number. The waiting time between acceptance and publication averages six months. This interval is considered ideal since it does not unduly delay publication and at the same time allows sufficient time for requesting and writing material in the event submissions do not provide an adequate supply.

The ratio between clinical articles, socio-economic presentations and dissertations on such subjects as impaired physicians has been maintained. Many scientific articles are now submitted to comply with the limitation of two printed pages. Articles that cannot be condensed have been subsidized by various research and departmental funds and by grants from the Indiana Medical Foundation.

Articles in the Continuing Medical Education series have appeared each month. Most of these are partially subsidized by the Division of Continuing Medical Education of the School of Medicine or by funds such as the Sandoz Prize Award. A readership survey shows that the CME articles are the best read of all the journal content.

Three series by journal consultants consist of synopsis and discussion of clinical articles in exchange copies of The British Medical Journal, The Medical Journal of Australia and The Annals of the Royal College of Surgeons of England.

The case against tobacco has been highlighted by clinical and research articles and by reports of success by hypnosis and the educational and behavior modification clinics of the Cummins Engine Company.

Other clinical material has covered the Consensus Reports of the National Institutes of Health. Publication of the "Peripheral Vascular Conference" series has continued and developed into a regular feature.

Medical history is well represented by the regular and timely presentations of Dr. Charles Bonsett and by discussion of medical care in China, as well as a biographical writing concerning Dr. John Shaw Billings.

New features added this year include "Public Health Notes" by Dr. Ronald Blankenbaker, state health commissioner; and a get acquainted item, "Meet Your ISMA Staff."

The Senior Class of Indiana University School of Medicine was invited to apply for a complimentary subscription to THE JOURNAL for one year. Approximately half the class has received THE JOURNAL on this basis since June.

Plans for the future include series on "Common Surgical Lesions of Hands" and "Practical Suggestions for Intensive Care Units."

Frank B. Ramsey, M.D.,
Editor

ISMA's Jail Project Advisory Committee

ACTION: Filed

In conjunction with the American Medical Association, the Indiana State Medical Association has continued its efforts to see that prisoners in county jails throughout the state are provided with adequate medical care. ISMA recently completed its fifth year as a participant in this national project.

Indiana remains the leading state nationally for jail accreditation. ISMA is presently providing 35 jails and the Indiana Juvenile Detention Center with technical assistance. Nine of these facilities comply with AMA standards for accreditation.

In accord with Federal cutbacks, ISMA's funding from the Law Enforcement Administration Association (LEAA) was not renewed after May 31, 1981. However, the Indiana Sheriff's Association proposed to continue financial support to ISMA for the jail project for six months, on a trial basis. Consequently, ISMA will provide technical assistance to Indiana's jails through Nov. 30, 1981. This grant finances the employment of a part-time project coordinator and an administrative assistant.

Indications that Indiana will continue to lead the nation in its impact on inmate health care needs are apparent. We encourage all Indiana physicians to support this project. The program can be workable only if it has the direct support of the medical community.

Dwight Schuster, M.D.
Chairman

Indiana Medical Education and Developmental Information Center (I-MEDIC)

ACTION: Filed

I-MEDIC was originated in October 1973 by ISMA House of Delegates Resolution 73-21. I-MEDIC was incorporated as a not-for-profit corporation in March 1975 and organized as a for-profit corporation in May 1978. I-MEDIC is totally owned by ISMA.

Since 1978, I-MEDIC has functioned as a computer service bureau, handling the data processing needs of five of the six Indiana PSROs. Our primary mission has been to maintain the confidentiality of data collected on Indiana patients and physicians. We have thus far been successful in achieving that goal.

The 1980 House of Delegates expressed concern over the organization's financial status. We have all recognized that PSRO data processing is far from being a gold mine. I am pleased to report to you that, since the fall of 1980, I-MEDIC's income has equalled expenses. Based on the instructions of the 1980 House of Delegates, both the ISMA Executive Committee and the ISMA Board of Trustees have continually monitored I-MEDIC's financial status.

Now, with the dissolution of Indiana PSROs appearing to be imminent, I-MEDIC's role as a PSRO data processor seems to be coming to an end. Even while gearing down from PSRO data processing, we were gearing up to provide the technical support needed to administer the ISMA Group Health Insurance Plan. At the same time, we are making contingency plans to serve as a computer resource for any peer review mechanisms that might follow PSROs.

Eli Goodman, M.D.
President, I-MEDIC

Resolutions

Resolution 81-1

Introduced by: Fountain-Warren County Medical Society
Subject: Executive Committee Structure
Referred to: Reference Committee 2
ACTION: Amended and Referred to the Board of Trustees.

Whereas, The Executive Committee of ISMA traditionally has been the finance committee of the Association; and

Whereas, Its additional duty was that of a housekeeping committee; and

Whereas, Over the past several years various changes to the bylaws relating to the Executive Committee have been made resulting in unusual powers for the committee, including policy-making for the Association between meetings of the Board of Trustees; and

Whereas, All of the preceding indicates a pressing need for a revision of the bylaws dealing with the Executive Committee; now, therefore be it

Resolved, That Chapter VIII, Section 1 be amended to read as follows: "The Board of Trustees at its organization meeting, by resolution adopted by a majority of the trustees in office, shall designate four trustees who, with the chairman of the board, will constitute the Executive Committee. The chairman of the board will be designate chairman of the Executive Committee. Members will serve until the next organization meeting of the board and until their successors are elected and qualified. The committee shall have such powers and duties as may be defined from time to time by the Board of Trustees; and be it further

Resolved, That the President and Treasurer of the Indiana State Medical Association be ex officio members of the Executive Committee with voting privileges; and be it further

Resolved, That the President-elect, immediate living Past President, Assistant Treasurer, Speaker and Vice Speaker of the House of Delegates be ex officio members of the Executive Committee without voting privileges.

Resolution 81-2

Introduced by: Fountain-Warren County Medical Society
Subject: Rescission of Policy Dealing With Major Offices
Referred to: Reference Committee 2
ACTION: Not Adopted.

Whereas, The House of Delegates of the Indiana State Medical Association adopted a policy prohibiting anyone from holding more than one major office; and

Whereas, No apparent or tangible beneficial result has ensued because of adopting this policy; and

Whereas, The amount of work for physicians willing to participate in ISMA affairs is expanding as rapidly as the activity and

scope of the Association itself; now, therefore be it.

Resolved, That the House of Delegates of the Indiana State Medical Association rescind its policy dealing with major offices.

Resolution 81-3

Introduced by: Owen-Monroe County Medical Society
Subject: Use of Human Chorionic Gonadotropin by Weight Reduction Clinics
Referred to: Reference Committee 5
ACTION: Adopted as amended.

Whereas, It has come to the attention of the Owen-Monroe County Medical Society that certain businesses have been established in Indiana which are advertised as weight clinics; and

Whereas, Among these, some advocate the use of Human Chorionic Gonadotropin (HCG) in weight reduction; and

Whereas, HCG has never been shown to be effective in weight control; and

Whereas, The manufacturer states that HCG has no known effect on fat mobilization, appetite or sense of hunger, or body fat distribution; now, therefore be it

Resolved, That the Indiana State Medical Association condemn the use of Human Chorionic Gonadotropin for the purpose of weight reduction.

Resolution 81-4

Introduced by: ISMA Commission on Constitution and Bylaws
Subject: Pro-Rated Monthly Dues for New Members
Referred to: Reference Committee 2
ACTION: Roll Call Vote. Unanimously adopted.

Whereas, ISMA bylaws currently require new members to pay dues for either 12 months or six months; and

Whereas, New members are therefore frequently required to pay for months when they were not members; and

Whereas, Many new members delay joining ISMA until such time as their dues match the number of months remaining in the membership year; now, therefore be it

Resolved, That for new members joining ISMA, dues will be calculated on a pro-rated monthly basis.

Resolution 81-5

Introduced by: Commission on Constitution and Bylaws
Subject: Delinquent Dues of Major Office Holders
Referred to: Reference Committee 2
ACTION: Adopted as amended.

Whereas, Confusion has arisen in the past regarding the legal authority of major office holders to continue their responsibilities without having fully paid ISMA annual dues; now, therefore be it

Resolved, That any member who fails to pay the appropriate annual dues to ISMA by January 15 will be considered delinquent; and be it further

Resolved, That any delinquent member who is a major office holder in ISMA not be allowed to vote in that capacity until annual dues are paid in full; and be it further

Resolved, That any major office holder, as defined in Chapter VI, Section 1 of the Bylaws, whose dues are delinquent be personally notified of this delinquency by the Executive Director of the Indiana State Medical Association; and be it further

Resolved, That the Board of Trustees be given the power to declare such members as suspended after February 1 at which time such members shall sacrifice all rights and privileges of this Association until said annual dues are received in full by the Indiana State Medical Association.

Resolution 81-6

Introduced by: Huntington County Medical Society
Subject: Repeal of PSRO
Referred to: Reference Committee 3
ACTION: Adopted Resolution 81-25 in lieu of Resolution 81-6.

Whereas, It has become apparent that PSRO legislation was introduced and enacted primarily as a "cost control" mechanism; and

Whereas, On August 25, 1980, hearings were held in the U.S. House of Representatives, at which time the Office of Management and Budget testified that after eight years the PSRO program was spending \$1 to save 50¢; and

Whereas, The American Medical Association has joined with other medical organizations in asking for repeal of PSRO; now, therefore be it

Resolved, That the Indiana State Medical Association petition, urge and request Senators Dole and Durenberger, the Republican majority and all members of the Senate Finance Subcommittee on Health, including Senator Long, to support President Reagan's Economic Recovery Program and to support the immediate repeal of the PSRO and U.R. programs in the forthcoming Senate Committee on Finance Budget Report; and be it further

Resolved, That the Indiana State Medical Association send a copy of this resolution, if adopted, to all state medical associations throughout the country, President Reagan, OMB Director Stockman, Vice President Bush, HHS Secretary Schweiker and our state Congressional delegation.

Resolutions

Resolution 81-7

Introduced by: Dubois County Medical Society
Subject: Change of ISMA Districts by Dubois County
Referred to: Reference Committee 2
ACTION: Adopted and referred to the Board of Trustees to consider the topic of appropriateness of ISMA's present district geographical structure and report back to the House of Delegates at its next meeting.

Whereas, Members of the Dubois County Medical Society of the Third District continually make the majority of their medical and surgical referrals and consultations to Evansville in the First District due to its close proximity; and

Whereas, Members of the Dubois County Medical Society have little contact and/or interaction with the major centers of the Third District, i.e., Clarksville and Jeffersonville; and

Whereas, Dubois County adjoins the eastern boundary of the First District; now, therefore be it

Resolved, That the Indiana State Medical Association deem it appropriate that Dubois County be transferred from the Third to the First District.

Resolution 81-8

Introduced by: Commission on Constitution and Bylaws
Subject: Alternate Trustee Vacancy
Referred to: Reference Committee 2
ACTION: Adopted.

Whereas, It is the intent that each Medical District be represented by a Trustee and an Alternate Trustee; and

Whereas, In the event of a vacancy occurring from any cause, except expiration of the term of office in the office of any District Trustee, the duly elected Alternate Trustee from the same district shall succeed to the office of the Trustee in that District for the unexpired term of said Trustee; now, therefore be it

Resolved, That in the event the Alternate Trustee succeeds the Trustee for any cause, with the exception of expiration of term of office, that the President of the District Medical Society assume the office of Alternate Trustee until such time as a new Alternate Trustee is elected.

Resolution 81-9

Introduced by: Commission on Constitution and Bylaws
Subject: Oath of Office, Delegate/Alternate Delegate
Referred to: Reference Committee 2
ACTION: Adopted as amended.

Whereas, it is desired that anyone working for the benefit or organized medicine give dutiful thought to the obligation encumbered, be it

Resolved, That it be recommended to County Medical Society Presidents to administer the following Oath of Office to Delegate(s) and Alternate Delegate(s) when they are elected:

"I, . . . , solemnly swear (or affirm) that I shall carry out to the best of my ability, the duties of (Delegate/Alternate Delegate) of the Indiana State Medical Association to which I have been elected.

"I shall strive constantly to maintain the ethics of the medical profession and to promote the public health and welfare. I shall dedicate myself and my office to improving the health standards of the American people and to do the task of bringing increasingly improved medical care within the reach of every citizen.

"I shall uphold the Constitution of the United States of America and of the State of Indiana, the Constitution and Bylaws of the American Medical Association and the Constitution and Bylaws of the Indiana State Medical Association at all times.

"I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans. To these duties and obligations, I pledge myself, so help me God."

Resolution 81-10

Introduced by: Hamilton County Medical Society
Subject: Confidentiality of Cause of Death on Natural Death Certificates
Referred to: Reference Committee 3
ACTION: Adopted as editorially amended.

Whereas, The Hamilton County Medical Society believes in maintaining the supremacy of the concept of the patient's right to privacy of his or her medical records; and

Whereas, The patient's right to privacy of medical records should be protected by all physicians in the State of Indiana; and

Whereas, The ultimate diagnosis of cause of death placed upon a death certificate should be confidential information and remain private medical information releasable only with appropriate consent of the immediate family of the deceased; now, therefore be it

Resolved, That the House of Delegates of the Indiana State Medical Association direct the Board of Trustees of the Indiana State Medical Association to research the area of confidentiality of death certificates, and if necessary have introduced into the Indiana General Assembly appropriate legislation to maintain the confidentiality of the cause of death determination on natural death certificates.

Resolution 81-11

Introduced by: Future Planning Committee
Subject: Resident Medical Society
Referred to: Reference Committee 2
ACTION: Referred to the Board of Trustees for report back to the House of Delegates at its next meeting.

Whereas, ISMA bylaws require that residents must join a county medical society concurrently with joining ISMA; and

Whereas, This unified membership approach does not seem to be working since only 60 of the 700 residents in this state belong to ISMA; and

Whereas, Residents represent the future of organized medicine but are currently underrepresented in organized medicine; and

Whereas, To be effective, all physicians must speak with a unified voice; and

Whereas, The American Medical Association allows residents to join that organization directly; now, therefore be it

Resolved, That the ISMA bylaws be modified to meet the needs of medical doctors during their residency training by creating a distinct component "Resident Medical Society" complete with a delegate and alternate to the ISMA House of Delegates; and be it further

Resolved, That ISMA Resident member dues be set at 20% of the Regular Member dues, rounded off to the nearest whole dollar, and that these dues accord Resident Members with the full rights and privileges of membership.

Resolution 81-12

Introduced by: Future Planning Committee
Subject: Medical Student Society
Referred to: Reference Committee 2
ACTION: Referred to the Board of Trustees with testimony from the Student Council.

Whereas, Indiana University Medical School currently has 1,220 medical students; and

Whereas, Medical students represent the future of organized medicine; and

Whereas, 669 Indiana University medical students have joined the American Medical Association directly; now, therefore be it

Resolved, That the ISMA bylaws be modified to meet the needs of medical doctors during their student training by creating a distinct component "Medical Student Society" complete with a delegate and alternate to the ISMA House of Delegates and be it further

Resolved, That ISMA Student Member dues be set at 10% of the Regular Member dues, rounded off to the nearest whole dollar, and that these dues accord Medical Student Members with the full rights and privileges of membership.

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Resolution 81-13

Introduced by: Clark County Medical Society
Subject: Separation of ISMA and Blue Shield
Referred to: Reference Committee 4
ACTION: Not adopted.

Whereas, In 1970 an Ad Hoc Committee of the ISMA Board of Trustees recommended 11 points to be re-evaluated and corrected by Blue Shield, stating that if satisfactory progress was not made in one year the Board of Trustees consider separation of the Indiana State Medical Association and Blue Shield; and

Whereas, Conditions over the past 10 years have actually worsened rather than improved; and

Whereas, More recently Blue Shield has tried to force the medical profession to accept the "usual, customary and reasonable" fee schedule as payment in full by encouraging patients not to pay anything billed in excess of what they pay, and to contest in court their physician at the expense of Blue Shield; and

Whereas, Such legal expense, along with increased clerical work, increases rather than decreases the cost of Medical Insurance; and

Whereas, Such court action serves to destroy any possible future relationship between the patient and physician; and

Whereas, Repeated petitions to the Board of Trustees of ISMA have failed to provide such separation; and

Whereas, Physician members of the Blue Shield Board are recommended for nomination to fill vacancies on the Board by district medical societies of ISMA; now, therefore be it

Resolved, That the House of Delegates of the Indiana State Medical Association hereby divest itself of any official relationship with Mutual Medical Insurance, Inc. (Blue Shield) and that it further withdraw its endorsement of this plan by its members.

Resolution 81-14

Introduced by: Vanderburgh County Medical Society
Subject: Reference Committees
Referred to: Reference Committee 2
ACTION: Not adopted.

Whereas, The Bylaws of the Indiana State Medical Association state in Division Three, Chapter V, Section 8, that resolutions must be submitted 45 days prior to the Annual Meeting unless of urgent nature; and

Whereas, Any matter contained in said reports of importance enough to be considered by the House of Delegates could be presented through appropriate channels in resolution form by said officer or his component County Society or Board, and in accordance with said Bylaws, Division Three, Chapter V, Section 8; and

Whereas, Consideration of such reports and addresses by the Reference Committee is a time-consuming review, and commonly results only in recommendation to file; and

Whereas, Such Reference Committee report to the ISMA House of Delegates is often perfunctorily received; now, therefore be it

Resolved, That the Bylaws of the ISMA in Division Three, Chapter V, Section 8, B., "Responsibilities of Reference Committees" present Paragraph 1, be deleted and amended to read in its entirety, "Four or more Reference Committees designated by numerals are hereby constituted to which all matters shall be referred."

Resolution 81-15

Introduced by: Vigo County Medical Society
Subject: Liability Insurance for County Officers
Referred to: Reference Committee 4
ACTION: Adopted as amended and Referred to the Board of Trustees.

Whereas, The ISMA officers and trustees are covered by liability insurance in regard to duties and functions in behalf of the ISMA; and

Whereas, The county society officers are an extension of the district and state officers; and

Whereas, There is an ever-increasing incidence of lawsuits in all segments of society; and

Whereas, The county societies are not covered by liability insurance; and

Whereas, Individual policy purchase is more expensive; now, therefore be it

Resolved, That the Board of Trustees of ISMA study the problem of liability coverage for county and district officers and that such coverage, if feasible, be offered on a local option basis.

Fiscal Note: \$700 per county.

Resolution 81-16

Introduced by: Howard County Medical Society
Subject: Dental Insurance for ISMA Members
Referred to: Reference Committee 4
ACTION: Adopted.

Whereas, Indiana State Medical Association has negotiated with Blue Cross-Blue Shield of Indiana for two separate medical plans to cover members and their families; and

Whereas, These plans have been a successful venture; and

Whereas, There is often a substantial tax saving for individuals and some corporations for insurance plans; and

Whereas, Dental insurance is not now available to members of the Indiana State Medical Association; now, therefore be it

Resolved, That the Indiana State Medical Association Board of Trustees study the feasibility of negotiating a dental insurance plan that would be available to the membership.

Resolution 81-17

Introduced by: Howard County Medical Society
Subject: Practical Political Principles Workshops
Referred to: Reference Committee 5
ACTION: Amended and Referred to the Board of Trustees.

Whereas, The majority of physicians within the State of Indiana are members of the Indiana State Medical Association; and

Whereas, The membership has consistently advocated the practice of the highest possible quality of medical care within this state; and

Whereas, The practice of medicine is based on scientific and benevolent principles; and

Whereas, Certain groups that purport to provide health care to the public based on less scientific and less benevolent principles, have made inroads through legislative endeavors; and

Whereas, Most physicians would oppose practices that are neither based on scientific principles nor in the public interest; and

Whereas, These physicians are hampered by their lack of political experience and their hesitation to participate in the political process; now, therefore be it

Resolved, That the Board of Trustees of ISMA study the feasibility of conducting workshops on political principles at the local level or within a reasonable distance; and that such workshops, if adopted, be made available to ISMA members and their families.

Resolution 81-18

Introduced by: Howard County Medical Society
Subject: ISMA Legislative Update to House of Delegates Members
Referred to: Reference Committee 3
ACTION: Adopted as amended.

Whereas, Certain bills under consideration by the Indiana Senate and House of Representatives are of major interest to physicians in this state; and

Whereas, Information on such pending legislation is not readily available to physicians from sources other than ISMA; and

Whereas, The positions adopted by ISMA and its members are generally in agreement with each other and would promote a higher quality of health care within this state; and

Whereas, Physicians within the constituency of each representative and senator in the State Legislature can better present effective and cogent arguments on the impact

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of pending legislation to their elected representatives; and

Whereas, Members of the House of Delegates have a definite interest in such legislation; and

Whereas, Information on the impact and progress of legislative bills can best be disseminated from the state level; now, therefore be it

Resolved, That ISMA include the members of the House of Delegates in its mailing list for legislative updates at the request of individual county medical societies; and be it further

Resolved, That ISMA study the feasibility of establishing an information system that can be turned on rapidly and effectively so that members can voice their opinion to their elected representatives at the state and federal levels.

Fiscal Note: \$505.70 (postage for mailings).

Resolution 81-19

Introduced by: Twelfth District Medical Society

Subject: Statewide Review Authority

Referred to: Reference Committee 1

ACTION: Adopted as amended.

Whereas, The future of the PSRO program in Indiana is doubtful; and

Whereas, It appears certain that the appropriateness of care review for hospital inpatients is to be insisted upon by third party payors be they federal programs, private insurance carriers, or self-insured private industries; and

Whereas, A third party carrier already has a pilot program at many hospitals in Indiana to conduct "peer" review; and

Whereas, We as physicians have an obligation to our patients to insure that quality of care and confidentiality are not sacrificed for short-sighted and ineffective cost control measures as we have seen with other review programs; and

Whereas, The ISMA with its organizational structure and in-house computer capability has a unique opportunity to step into the post-PSRO void in that it has been established that review is effective only if done by peers confronted with similar circumstances; and

Whereas, Along with this potential opportunity comes a significant potential for creating that which we seek to avoid; now, therefore be it

Resolved, That if a State-Wide Review Authority is established by the ISMA that the 1981 House of Delegates recommend that it function primarily to organize the review process, collect and store data, and have the power to negotiate for Indiana physicians with third party payors; and be it further

Resolved, That it function within the following guidelines:

1) The actual review process be carried out on the local level with the county society or individual hospital staffs (whichever is appropriate) being the functional review units.

2) No statewide review process be undertaken which tends to ignore local needs.

3) No statewide standards or criteria will be established except as for informational purposes for local review units.

4) ISMA be responsible for the collection and storage of data and also the dissemination of data to the local review units.

5) The confidentiality of this data is the responsibility of the Statewide Review Authority.

6) Release of collected data to any organization other than the local review units be expressly forbidden without the expressed consent of the ISMA membership in the form of affirmation by the House of Delegates and the local collecting agency.

Resolution 81-20

Introduced by: Allen County Medical Society

Subject: Direct Tax Credit for Physicians Who See Medicaid Patients

Referred to: Reference Committee 3

ACTION: Not adopted.

Whereas, The federal government has promised the poor that they have the right to quality medical care to be paid for by the government; and

Whereas, Physicians have, in effect, subsidized the medical care of Medicaid recipients through the provision of services at a vastly discounted rate; and

Whereas, The differential between Medicaid reimbursement and usual and customary rates is creating a two-class system of Medicaid care in Indiana and making access to quality medical care difficult for the poor; and

Whereas, It has been suggested to President Reagan and Secretary of Health and Human Services Schweiker to create a direct federal tax credit for those physicians who see Medicaid patients in their private offices in the amount of difference between their usual and customary fee and the local welfare department's reimbursement; now, therefore be it

Resolved, That the House of Delegates of the Indiana State Medical Association endorse the concept of direct state tax credit for those physicians who see Medicaid patients in their private offices; and be it further

Resolved, That the ISMA House of Delegates instruct the Board of Trustees and/or the appropriate commission to introduce legislation for direct state tax credit as an extremely cost-effective means of broadening physician participation in the Medicaid program and insuring the poor better access to quality medical care.

Resolution 81-21

Introduced by: Allen County Medical Society

Subject: Recognition of Otis R. Bowen, M.D.

Referred to: Reference Committee 5

ACTION: Adopted by acclamation.

Whereas, Otis R. Bowen, M.D. has distinguished himself as a devoted family physician, husband and father; and

Whereas, He has served his district faithfully as its servant in the House of Representatives of the State of Indiana; and

Whereas, he has served this body as its Speaker employing the highest qualities of leadership in this role; and

Whereas, The electorate has voted him their Governor for two terms wherein he executed his duties in a highly commendable manner; now, therefore be it

Resolved, That the Indiana State Medical Association honor Dr. Otis R. Bowen by recognizing and widely proclaiming his accomplishments so that he may know that his medical peers are grateful to him for the honor he has bestowed on the state and the medical profession in particular; and be it further

Resolved, That Dr. Bowen be granted a lifetime membership in ISMA.

Resolution 81-22

Introduced by: Huntington County Medical Society

Subject: Change of ISMA District by Huntington County

Referred to: Reference Committee 2

ACTION: Adopted and referred to the Board of Trustees to consider the topic of appropriateness of ISMA's present district geographical structure and report back to the House of Delegates at its next meeting.

Whereas, Members of Huntington County Medical Society are much closer geographically with the 12th District members; and

Whereas, Members of Huntington County Medical Society are more closely associated with the Fort Wayne specialists; now, therefore be it

Resolved, That the Indiana State Medical Association deem it appropriate that Huntington County be transferred from the Eleventh District to the Twelfth Medical District.

Resolution 81-23

Introduced by: Lake County Medical Society

Subject: Dissolution of Relations With Blue Shield

Referred to: Reference Committee 4

ACTION: Not adopted.

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Whereas, There are increasing difficulties in processing insurance claims by the Mutual Medical Insurance, Inc. (Blue Shield) for their clients; and

Whereas, The working relationship that once existed between the Mutual Medical Insurance, Inc. and the medical doctors in Indiana has been steadily diminishing; and

Whereas, There are significant differences in reimbursements for physician services between the Mutual Medical Insurance, Inc. and other insurance carriers; now, therefore be it

Resolved, That the Indiana State Medical Association dissolve its ties with the Mutual Medical Insurance, Inc.

Resolution 81-24

Introduced by: Arthur Jay, M.D.
Subject: Clinical Laboratory Tests Referred Out of State of Indiana
Referred to: Reference Committee 5
ACTION: Adopted as amended.

Whereas, There is an alarming number of laboratory tests sent out of the State of Indiana each year; and

Whereas, The gross dollar volume of laboratory work sent out amounts to conservatively some 8-10 million dollars per year from pathologist-directed laboratories and physicians' offices; and

Whereas, This loss represents a very real, and very practical economic danger to the future of laboratory medicine in Indiana because of the inability to continue growth, to continue progress, to offer more sophisticated testing, to buy new and better equipment, to improve on service, to offer stat service and 7-day service, to continue to provide quality assurance, to hire new technologists, or to remain at the status quo in the face of static or decreased cash flow without deterioration of laboratory services; and

Whereas, This also has real economic implications to the community and business in terms of loss of jobs, loss of service, potential closure of laboratories, loss of money flow to the local economy and loss of taxes; and

Whereas, This is further critically affected by federal and state control of fees, by potential cost containment by regulations which could disastrously affect laboratories, by inflation and rising costs or competitive bidding for laboratory services; and

Whereas, That this has very direct economic, and therefore, very practical ramifications and repercussions on the quality and service of laboratory medicine; now therefore be it

Resolved, That the pathologists, laboratories, and practicing physicians in this state endeavor wherever at all possible to refer laboratory testing to qualified local, regional and state laboratories so that the functional

integrity of these necessary facilities may be maintained; and be it further

Resolved, That the medical laboratories and pathologists in Indiana identify the needs of the physician and patients in Indiana and endeavor to fulfill these needs.

Resolution 81-25

Introduced by: Vanderburgh County Medical Society
Subject: Elimination of PSRO Legislation
Referred to: Reference Committee 3
ACTION: Adopted

Whereas, HR 615 is to amend Title XI of the Social Security Act, to repeal the provision for the establishment of Professional Standards Review Organizations, to review service covered under the Medicare and Medicaid programs; now, therefore be it

Resolved, That the Indiana State Medical Association support HR 615 in the 97th Congress and the elimination of the mandate for Professional Standards Review from PL 92-603.

Resolution 81-26

Introduced by: R.G. Huber, M.D.
Subject: Health Insurance for ISMA Members
Referred to: Reference Committee 4
ACTION: Not adopted.

Whereas, Inflation has affected health care costs and physicians are cost conscious about personal health insurance; and

Whereas, ISMA members had a choice between basic benefits (Plan 1) and a \$250 deductible (Plan 2), which has changed to a basic plan and a \$500 deductible, with a 69% increase in premium in the latter; and

Whereas, There is a trend from first dollar coverage to a small deductible or a copayment plan; and

Whereas, Most ISMA members have no input into specifics of desired plans; and

Whereas, Anticipated interest of \$90,000 from invested premiums will be placed in ISMA general funds, now, therefore be it

Resolved, That ISMA consider deleting the first dollar coverage plan offered to members; and be it further

Resolved, That ISMA survey all interested members as to their interests in various options with premiums quotes so that ISMA's committees and Board may make available plans that are more desirable to the members; and be it further

Resolved, That ISMA consider using the interest from invested premiums to reduce premiums rather than being used for general ISMA purposes.

Fiscal Note: No direct cost to ISMA members; can be expended to \$50,000 administration fees, or \$90,000 interest fund.

Resolution 81-27

Introduced by: Howard County Medical Society
Subject: ISMA Opposition to Concept of Home Deliveries
Referred to: Reference Committee 5
ACTION: Adopted as amended.

Whereas, Public interest in, and the incidence of, home deliveries seems to be increasing; and

Whereas, There is evidence that an increased incidence of home deliveries will likely result in higher maternal and fetal morbidity and mortality; and

Whereas, The Indiana State Medical Association has traditionally discouraged practices known to be detrimental to the health and safety of mothers and newborn babies as well as that of the public generally; now, therefore be it

Resolved, That the Indiana State Medical Association encourage the delivery of all pregnancies in a hospital or in those settings best suited to minimize the risk to the mother and infant.

Resolution 81-28

Introduced by: Executive Committee
Subject: Medical Student Loan Fund
Referred to: Reference Committee 4
ACTION: Adopted as amended.

Whereas, Medical students at the Indiana University School of Medicine have an ongoing need for financial assistance; and

Whereas, There is an increasing need for multiple sources of financial assistance; now, therefore be it

Resolved, That the Student Loan Fund be augmented by a previous \$5.00 allocation from each ISMA member's dues; and be it further

Resolved, That as soon as possible the annual interest from the Student Loan Fund be used for making loans to medical students; and be it further

Resolved, That the Indiana State Medical Association seek other funds for capitalizing this loan fund.

Resolution 81-29

Introduced by: Commission on Constitution and Bylaws
Subject: Decimalized Version of Constitution and Bylaws
Referred to: Reference Committee 2
ACTION: Amended and referred to Commission on Constitution and Bylaws for report back to the House at its next meeting.

Whereas, The Commission on Constitution and Bylaws has worked faithfully and

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diligently throughout the previous twelve months; and

Whereas, The Commission on Constitution and Bylaws was mandated by President Haley to bring our current bylaws within compliance with contemporary procedures of organized medicine; and

Whereas, The Commission on Constitution and Bylaws has conscientiously considered every word of our current bylaws, making revisions it deemed appropriate to accomplish the general as well as the specific mandates of this House and President Haley at the 1980 Annual Convention; and

Whereas, Said revisions contain little, if any, that should arouse major controversy; and

Whereas, The resulting, revised and decimalized version of the proposed Bylaws was submitted to ISMA headquarters well in advance of the 45 day deadline for consideration by this House; and

Whereas, It is most advisable that ISMA consider this proposed decimalized bylaw document at the earliest practical time; now, therefore be it

Resolved, That the House of Delegates consider the decimalized version of the proposed bylaws for ISMA; and be it further

Resolved, That there be distribution through THE JOURNAL of ISMA, to the entire membership, this proposed Constitution and Bylaws recodification and that the completed and updated decimalized version of the Bylaws be presented at the next meeting of the House for final consideration.

Resolution 81-30

Introduced by: Bartholomew-Brown
County Medical Society
Subject: Free Standing Emergency
Care Centers
Referred to: Reference Committee 4
ACTION: Adopted as amended.

Whereas, Free standing emergency care centers or "emergicenters" represent a relatively recent development in the delivery of health care services; and

Whereas, These centers vary according to governing structures, types of ownership and sponsorship, comprehensiveness of service and types of affiliation with hospitals; and

Whereas, Free standing emergency centers receive most of their revenues from private insurers; now, therefore be it

Resolved, That the Indiana State Medical Association Board of Trustees create an ad hoc committee to study what impact the free standing emergency care centers will have on the health care system; and be it further

Resolved, That this Resolution be immediately referred to the American Medical Association for study.

Resolution 81-31

Introduced by: Allen County Medical Society
Subject: Malpractice Actuary
Referred to: Reference Committee 3
ACTION: Adopted as amended.

Whereas, There is a great degree of uncertainty about the adequacy of the existing surcharge in Indiana and the adequacy of the "cap" on the patient's compensation fund; and

Whereas, The physicians have little knowledge at present about the actuarial soundness of the patient's compensation fund; and

Whereas, The only monies that are in the patient's compensation fund are paid by providers (mostly by individual providers); and

Whereas, It is of immediate concern to the medical profession in Indiana to be informed about the actuarial soundness of the patient's compensation fund because an actuarial study authorized by the former Governor's Malpractice Study Commission has recommended an increase in the surcharge from 10% to 40% (a 400% increase); now, therefore be it

Resolved, That the Indiana State Medical Association hire a person experienced in medical malpractice insurance actuarial work to study the "patient's compensation fund" for actuarial soundness and make appropriate recommendations to the Indiana State Medical Association.

Fiscal Note: \$3,000.00 - \$5,000.00 (time)
\$600.00 (expenses)
2 trips Chc. to Indy

Resolution 81-32

Introduced by: ISMA Board of Trustees
Subject: Statewide Utilization Review Organization
Referred to: Reference Committee 1
ACTION: Adopted as amended.

Whereas, Insurance companies and private industry are now implementing hospital review programs; and

Whereas, Review of most Indiana Medicare/Medicaid patients is now done by Indiana Blue Cross/Blue Shield; and

Whereas, Only physician controlled organizations should be reviewing patient care; now therefore be it

Resolved, That the ISMA House of Delegates authorizes the Board of Trustees to investigate the creation of a physician controlled, statewide utilization review organization; and be it further

Resolved, That the ISMA Board of Trustees is authorized to implement a pilot review project, if that course of action seems feasible; and be it further

Resolved, That the Board of Trustees shall report to the House of Delegates the results of this study and obtain approval of the

House before continuing this project beyond the pilot stage.

Fiscal Note: \$50,000 includes one staff, travel expenses, and routine office supplies, if a pilot project is implemented.

Resolution 81-33

Introduced by: Marion County Medical Society
Subject: Elimination of Designation and Funding for HSAs
Referred to: Reference Committee 3
ACTION: Adopted

Whereas, Provisions of the Budget Reconciliation Act of 1981 permit the Governor of the State of Indiana, upon application to the Secretary of Health and Human Services, to request that the Secretary eliminate the federal designation and funding of Indiana's three Health Systems Agencies; and

Whereas, The Indiana State Board of Health has, through operation of the State Health Coordinating Council, demonstrated its ability to meet the purposes of the Health Planning Act; and

Whereas, Dollar thresholds for certificate-of-need review have been substantially increased, thereby reducing the number of projects which will be reviewed; and

Whereas, The Health Systems Agencies have had no demonstrable cost efficiencies and further federal funding cannot guarantee future cost effectiveness; and

Whereas, The Governor's application to the Secretary for elimination of federal designation and funding of the HSA's in Indiana must be received by November 1; now, therefore be it

Resolved, That the Indiana State Medical Association urge the Governor to apply to the Secretary of Health and Human Services for the elimination of designation and funding of the three Health Systems Agencies in Indiana in a manner consistent with provisions contained in the Omnibus Budget Reconciliation Act of 1981.

Resolution 81-34

Introduced by: Alvin J. Haley, M.D. in his Address to the House
Subject: National Conference on Medical Costs
Referred to: Reference Committee 1
ACTION: Adopted.

Resolved, That the AMA initiate a call for a National Conference on Medical Costs which should be sponsored by the White House.

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Presidential Resolution

ACTION: Adopted by acclamation

Whereas, The presidency of the Indiana State Medical Association calls for enormous amounts of time and energy to be expended on behalf of the Association at great sacrifice to family and self; and

Whereas, The current president has, on many occasions, gone beyond the call of duty for the Association; and

Whereas, He has exhibited strong leadership qualities in directing the affairs of the Association; and

Whereas, Because of his strong leadership and keen understanding of legislative matters, the Association has increased its membership, eliminated its 1981 budget deficit, and acted on all legislative proposals which could affect the way physicians practice medicine in Indiana; now, therefore, be it

Resolved, That this House of Delegates express its heartfelt appreciation to Alvin J. Haley, M.D., and wish him every success in all future endeavors.

Resolution of Commendation

Introduced by: John W. Beeler, M.D.

Subject: Honorary Membership in ISMA for Elsie A. Reid

ACTION: Adopted by Acclamation

Whereas, Elsie Reid has completed fifty years as a member of the staff of the Indiana State Medical Association; and

Whereas, Miss Reid has served the physicians of Indiana honorably and well during her entire half century with ISMA; and

Whereas, She has worked vigorously to meet the challenges which have continuously confronted the Association; now, therefore be it

Resolved, That Miss Reid's extraordinary years of service and her dedication to medicine be recognized; and be it further

Resolved, That Elsie A. Reid be elected an honorary member of the Indiana State Medical Association.

Resolution of Commendation

Introduced by: Allen County Medical Society

Subject: Steven C. Beering, M.D.

ACTION: Adopted by acclamation

Whereas, The Indiana Plan for the expansion of medical education was formulated in 1969 to help solve problems dealing with physician shortages and postgraduate medical education in the state; and

Whereas, The administration of the Indiana University School of Medicine was entrusted to implement this vast plan for the enrichment of all the citizens of this state; and

Whereas, The completion of this plan was accomplished this fall with the opening of the seventh and final center of the Indiana University School of Medicine in Fort Wayne; now, therefore be it

Resolved, That Dean Steven C. Beering, M.D., and the Indiana University School of Medicine be commended by this Association for their role in facilitating this vast undertaking and for providing leadership in its success; and be it further

Resolved, That this commendation be extended to Doctor Beering and the Administration of Indiana University, and be made a permanent part of the minutes of this House of Delegates.

Resolution of Commendation

Introduced by: Marion County Medical Society

Subject: Donald E. Wood, M.D.

ACTION: Adopted by Acclamation

Whereas, Doctor Donald Wood has served the Indiana State Medical Association in many capacities, including President and as an AMA Delegate; and

Whereas, He is scheduled to undergo open heart surgery on Tuesday, October 27, at the Indiana University Hospital; now, therefore be it

Resolved, That the House of Delegates of the Indiana State Medical Association wishes Doctor Wood a speedy recovery.

Resolution of Commendation

Introduced by: Alvin J. Haley, M.D.

Subject: Patrick J. V. Corcoran, M.D.

ACTION: Adopted by acclamation

Whereas, He has served as an AMA Delegate for nearly a decade; and

Whereas, He has served as a member and continues to serve as a member of the Commission on Medical Education of the AMA; and

Whereas, He has served ISMA in many capacities, including President; and

Whereas, He has served in the practice of medicine in Evansville for many years; and

Whereas, He has done an excellent job in the field of medical education; and

Whereas, All his services have been thoughtful, energetic, and exemplary; now, therefore be it

Resolved, That this House of Delegates express its heartfelt gratitude to Patrick J. V. Corcoran, M.D.

Resolution to Staff and Others

ACTION: Adopted by acclamation

Whereas, The 132nd Annual Convention of the Indiana State Medical Association is drawing to a successful conclusion; and

Whereas, The ISMA staff and the ISMA Commission on Convention Arrangements have labored long and hard to insure this convention was run in an efficient manner, and

Whereas, With invaluable assistance from the State Board of Health, Indianapolis Convention Bureau, technical exhibitors who supported the continuing medical education programs at the convention, and many others who assisted in the successful planning and execution of this convention; now, therefore be it

Resolved, That this House of Delegates express its sincere thanks to the ISMA staff, Commission on Convention Arrangements, technical exhibitors, and all those who contributed to the success of the 1981 convention.

Exhibit Winners

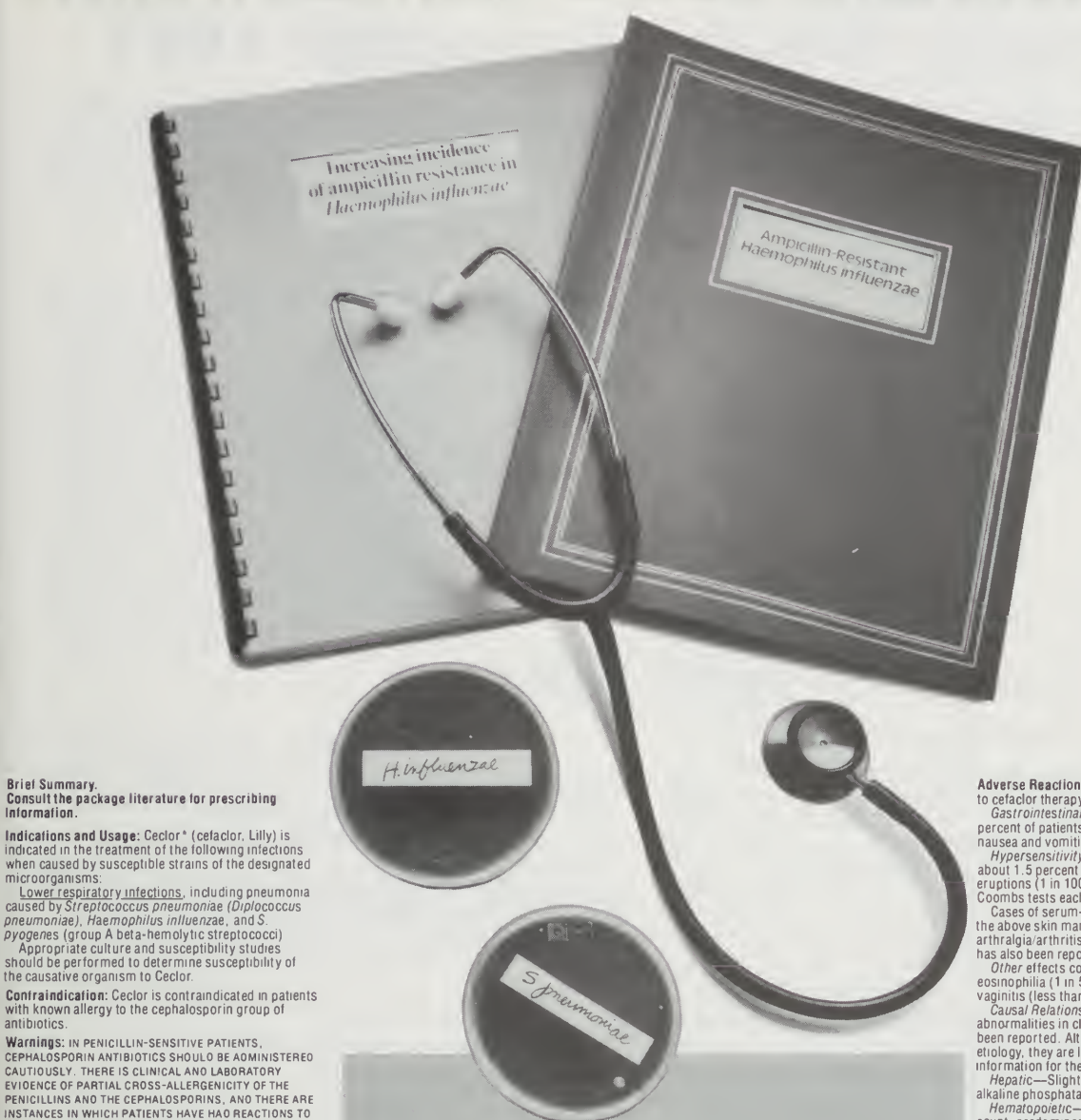
First Place: "Bronchial Artery Embolization for Control of Massive Hemoptysis." Robert W. Holden, M.D.

Second Place: "An Anti-Smoking Approach for Practicing Physicians." L. H. Bates, M.D.

Third Place: "Radiography with Small Dose Glucagon." Stanley M. Chernish, M.D.

Honorable Mention: "Nystatin Popsicles: Therapy Made Delicious." Joseph M. Poland, D.D.S.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Cefclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci). Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Cefclor.

Contraindication: Cefclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Cefclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Cefclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Cefclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistix* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of *Haemophilus influenzae*—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Cefclor.¹⁻⁶

In clinical trials, patients with bacterial bronchitis due to susceptible strains of *Streptococcus pneumoniae*, *H. influenzae*, *S. pyogenes* (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Cefclor.⁷

Cefclor®

cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below. Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.⁸

Note: Cefclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285. Eli Lilly Industries, Inc., Carolina, Puerto Rico 00630

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AUXILIARY REPORT

Marianna (Mrs. Glenn W., Jr.) Irwin
President, ISMA Auxiliary

Mrs. R. M. Schleinkofer ISMA-A President-Elect

The 1981 AMA Auxiliary Leadership Confluence was held Oct. 11-13, at the Drake Hotel in Chicago. Those attending in addition to the president of the ISMAA, Marianna Irwin, and the president-elect, Karen Schleinkofer, were: Sharon Harris-Allen Co., Debbie Voskuhl-Clark Co., Linda Branam-Delaware-Blackford, Pat Buddress-Elkhart Co., Sue Magno-Grant Co., Connie Turner-Knox Co., Terry Janovsky-LaPorte-Michigan City, Anne Throop-Marion Co., Susie Ferguson-Wabash Co. and Rosanna Iler from the ISMA office.

The meeting began Sunday evening with a dinner at which Daniel Cloud, M.D., president of the

AMA, was the keynote speaker. Monday started at 6:30 a.m. with a Jazz-er-cize class; unfortunately, not all of us made it. Monday was devoted to seminars on self improvement of leadership qualities. The seminars were: Parliamentary Procedure, Speeches—The Preparation and Delivery, Building a Winning Team, Coalitions, Public Relations—How to Influence, Committees—How to Make Them Work. The seminars were led by experts in each field and surprisingly the Parliamentary Procedure turned out to be the most interesting. At lunch we saw the new slide presentation of the AMA-ERF. Dinner was divided into regions according to the size of each auxiliary in order to exchange ideas and common problems.

Tuesday's seminars were devoted to program ideas. Those offered were: Help! I'm the Parent of a Teenager, Life Stress Management Without Substances, Substance Abuse, Home and Street Safety, The Aging Population and The Family of the Impaired Physician.

The meeting ended at lunch Tuesday with James Sammons, M.D., executive vice-president of AMA, speaking. He strongly recommended that we keep abreast of all medical legislation.

The confluence gave us all a greater appreciation of the wide scope of working talent in the auxiliary at the local, state and national levels and that each level is dependent upon the other levels for support and motivation.

THE INDIANA STATE MEDICAL ASSOCIATION

1982 Annual Meeting—Oct. 15-18, Indianapolis

OFFICERS FOR 1981-1982

President—Martin J. O'Neill, 301 Washington St., Valparaiso 46383
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Speaker of the House—Lawrence E. Allen, 2009 Brown St., Anderson 46016

Vice Speaker—Shirley T. Khalouf, 1204 Overlook Dr., Marion 46952

TRUSTEES

District	Term Expires
1—John A. Biral, Evansville	Oct. 1983
2—Ralph W. Stewart, Vincennes	Oct. 1984
3—Richard G. Huber, Bedford	Oct. 1982
4—Mark M. Bevers, Seymour	Oct. 1983
5—Paul Siebenmorgen, Terre Haute (Chairman)	Oct. 1984
6—Davis W. Ellis, Rushville	Oct. 1982
7—Donald C. McCallum, Indianapolis	Oct. 1983
8—H. Marshall Truster, Indianapolis	Oct. 1984
9—Richard L. Reedy, Yarktown	Oct. 1984
10—Max N. Hoffman, Cavington	Oct. 1982
11—Charles D. Egnatz, Shererville	Oct. 1983
12—Herbert C. Khalouf, Marion	Oct. 1984
13—Michael O. Mellinger, LaGrange	Oct. 1982
14—Donald S. Chamberlain, South Bend	Oct. 1983

ALTERNATES

District	Term Expires
1—E. DeVerre Gourieux, Evansville	Oct. 1982
2—Paul J. Wenzler, Bloomington	Oct. 1983
3—Eli Hallal, New Albany	Oct. 1983
4—William E. Cooper, Columbus	Oct. 1982
5—Benny Ka, Terre Haute	Oct. 1982
6—Clarence G. Clarkson, Richmond	Oct. 1983
7—John D. MacDougall, Beech Grove	Oct. 1982
8—Garry Bolinger, Indianapolis	Oct. 1982
9—William C. VanNess II, Alexandria	Oct. 1982
10—Lowell R. Stephens, Cavington	Oct. 1983
11—Walfred A. Nelson, Gary	Oct. 1982
12—Edward L. Langstan, Flora	Oct. 1983
13—Thomas A. Felger, Fort Wayne	Oct. 1983
14—John W. Luce, Michigan City	Oct. 1982

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Section on Radiology

Chairman—Gerald J. Kurlander, Indianapolis
Secretary—Robert W. Holden, Plainfield

Section on Nervous and Mental Diseases

Chairman—Nancy C. A. Roeske, Indpls.
Secretary—Judith Campbell, Indianapolis

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Secretary—Lee H. Trachtenberg, Munster

Section on Nuclear Medicine

President—Ranald I. Veatch, Indianapolis
Secy-Treasurer—Miguel B. Dizon, Indpls.

DELEGATES TO THE AMA

Terms expire December 31, 1982:

Delegates: George T. Lukemeyer, Indianapolis; Malcolm O. Scamahorn, Pittsboro; Everett E. Bickers, Floyds Knobs.
Alternates: Robert M. Seibel, Nashville; Lloyd L. Hill, Peru; Gilbert M. Wilhelmus, Evansville.

Terms expire December 31, 1983:

Delegates: Marvin E. Priddy, Fort Wayne; Peter R. Petrich, Attica; Thomas C. Tyrrell, Calumet City.
Alternates: Arvine G. Popplewell, Indianapolis; G. Beach Gattman, Elkhart; Vincent J. Santare, Munster.

DISTRICT MEDICAL SOCIETY OFFICERS

District	President	Secretary	Place, Date of Meeting
1.	Jahn D. Pulcini, Evansville	Kent McKinney, Newburgh	June 17, 1982, Evansville
2.	Thomas E. Bailey, Linton	Betty J. Dukes, Dugger	
3.	Wallace D. Jahnsan, Bedford	Peter H. Livingston, Bedford	
4.	Ricardo C. Domingo, Greensburg	Robert P. Acher, Greensburg	
5.	J. Franklin Swaim, Rockville	Daniel J. Dwyer, Rockville	
6.	William F. Kerrigan, Connersville	Wylie G. McGlothlin, New Castle	1982, New Castle
7.	Warren L. Gray, Martinsville	M. O. Scamahorn, Pittsboro	
8.	Caral R. Chambers, Union City	Susan K. Pyle, Union City	June 23, 1982, Muncie
9.	Lowell R. Stephens, Covington	Theodore C. Persan, Veedersburg	June 24, 1982, Attica
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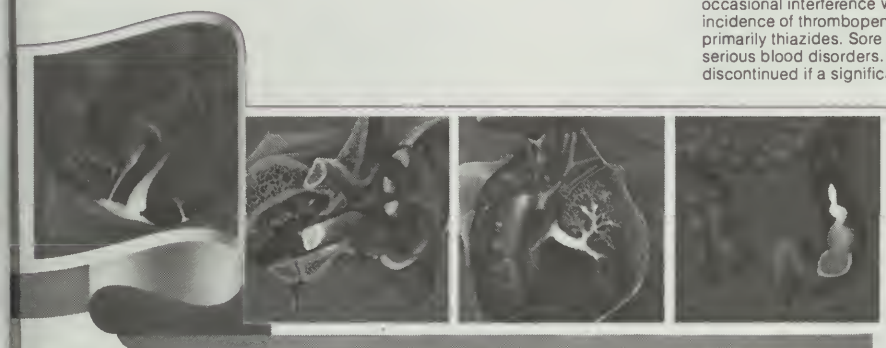
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1. Rubin RH, Swartz MN: *N Engl J Med* 303:426-432, Aug 21, 1980. 2. Data on file, Medical Department, Hoffmann-La Roche Inc.

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